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World War II Wargames Rules

BOLT ACTION

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GAMES

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To begin a game of Bolt Action you will need this set of rules and one or more opponents to play against. Each opposing side will also require painted model troops, representing the soldiers, guns and tanks of your chosen armies. Finally, you must find a playing surface to represent the battlefield – a table top of some kind is the preferred solution, but the floor will do and certainly has the advantage of size. Ideally, your battlefield will be fashioned to represent a suitable scene where the action is to take place. It might include model woodland, buildings, roads, hills and so on. It could be an industrial scene with shunting yards and factories. Or perhaps it is simply a wasteland of heath and marshes. There are just a few more basic supplies you will need before you are ready to take your armies into action.

TAPE MEASURE

During the battle it is necessary to measure distances when you move your troops and when they shoot their weapons. All distances in this book are given in inches (e.g. 6", 12", etc.). If you prefer to play using centimetres you are welcome to do so, counting each inch as either one or two centimetres as you please.

The easiest way to measure distances during the game is without a doubt a retractable tape measure, but you can also use rulers of suitable length if you prefer.

DICE AND MARKERS

D6s

Bolt Action uses ordinary six-sided dice, which we simply call a 'die' or 'D6' for short (i.e. Die 1-6). Rolling an ordinary die gives you a random number between 1 and 6. Occasionally we will need to generate a different range of results, so you will see the following notation used throughout the rules.

D2 This means roll an ordinary die and on a roll of 1, 2 or 3 the result is 1, and on a roll of 4, 5 or 6 the result is 2.

D3 This means roll an ordinary die and halve the result, rounding up, thus generating a score of 1, 2 or 3.

2D6 This means to roll two dice and add their results together, for a total score of between 2 and 12. Only rarely will you be asked to add more dice and add them together; for example, 3D6, 4D6 and so on.

D6+1 This means to roll a die and add 1 to the result, generating a score between 2 and 7. This can be varied in many different ways by rolling different numbers of dice and then adding or subtracting different values. For example you could be asked to roll 2D6–1 for a final score of between 1 and 11, or you might be asked to roll D6+3, 3D6–2, and so on.

The German war machine rolls through another town

ORDER DICE

In the Bolt Action game troops can be given different kinds of instructions, which we call orders. There are six different orders: *Fire, Advance, Run, Ambush, Rally,* and *Down*. We will explain how these work in due course. During play a die is placed next to an infantry, tank, artillery piece or other unit to show which order has been given. Flip the die so that the number showing uppermost corresponds to the order as follows.

1. Fire
2. Advance
3. Run
4. Ambush
5. Rally
6. Down

Ideally each player will have a set of distinctly coloured but otherwise identical dice to use for orders; for example Germans blue and Russians green. Each side starts the game with one order die for each unit, which is to say one die for each squad or team of infantry and one for each tank, armoured car or other vehicle. So, for example, if an army has six infantry squads, a machine gun team, and three tanks then it has ten distinct units and the player starts the game with ten order dice.

DICE CUP

During the game both sides' order dice are placed together in some kind of container and drawn blind one at a time to determine which side acts next. To facilitate this you will need a large mug, a dice cup, pot, or some similar opaque container large enough to hold all the dice. In the rules we always refer to this as a dice cup, but it can be any suitable container so long as it allows you to draw the dice unseen.

If you don't have two sets of differently coloured dice to use as order dice, then all you need are differently coloured tiddlywinks, beads or card chits instead. Let's say you are using chits cut from a sheet of thin card. One player takes one blank chit for each unit in his army; the opposing player takes one chit for each of his units and marks his chits with a cross. The chits are then placed together in the dice cup and drawn at random to determine which side acts next. When a unit acts any dice can then be used together with the chit to show which order has been given. Alternatively, players can make up their own card counters with the orders marked on them if they prefer.

Warlord Games have made sets of special order dice in distinct colours – these dice are clearly marked Fire, Advance, Run, Ambush, Rally and Down. Although you don't need to have these dice to play Bolt Action they are a convenient and attractive alternative to using standard coloured dice.

DOWN
ADVANCE
AMBUSH
DOWN
RUN
AMBUSH
RALLY
FIRE
AMBUSH

PIN AND OTHER MARKERS

Pin markers are placed next to units when they are hit by enemy fire to show that they are 'pinned'. This reduces their *ability to respond to orders effectively. Any kind of distinctive* marker will do the job and some examples of the kind of thing we use are shown below.

Occasionally you will need markers for other purposes, for example to mark a target for aerial attack or artillery bombardment. Use any distinctive marker for this. We often use a coloured chit.

RE-ROLLS

Sometimes a rule will allow you to re-roll a result. This means to pick up the dice you just rolled if you are not happy with the result and roll them again. The second score is the one that you must use, even if it's worse than the first! Note that you can never re-roll a re-roll – you must accept the re-rolled result.

MEASURING DISTANCES

When you play Bolt Action, you will often need to measure distances between units, as well as the distance moved by models as they make their way across the battlefield.

DISTANCE BETWEEN MODELS

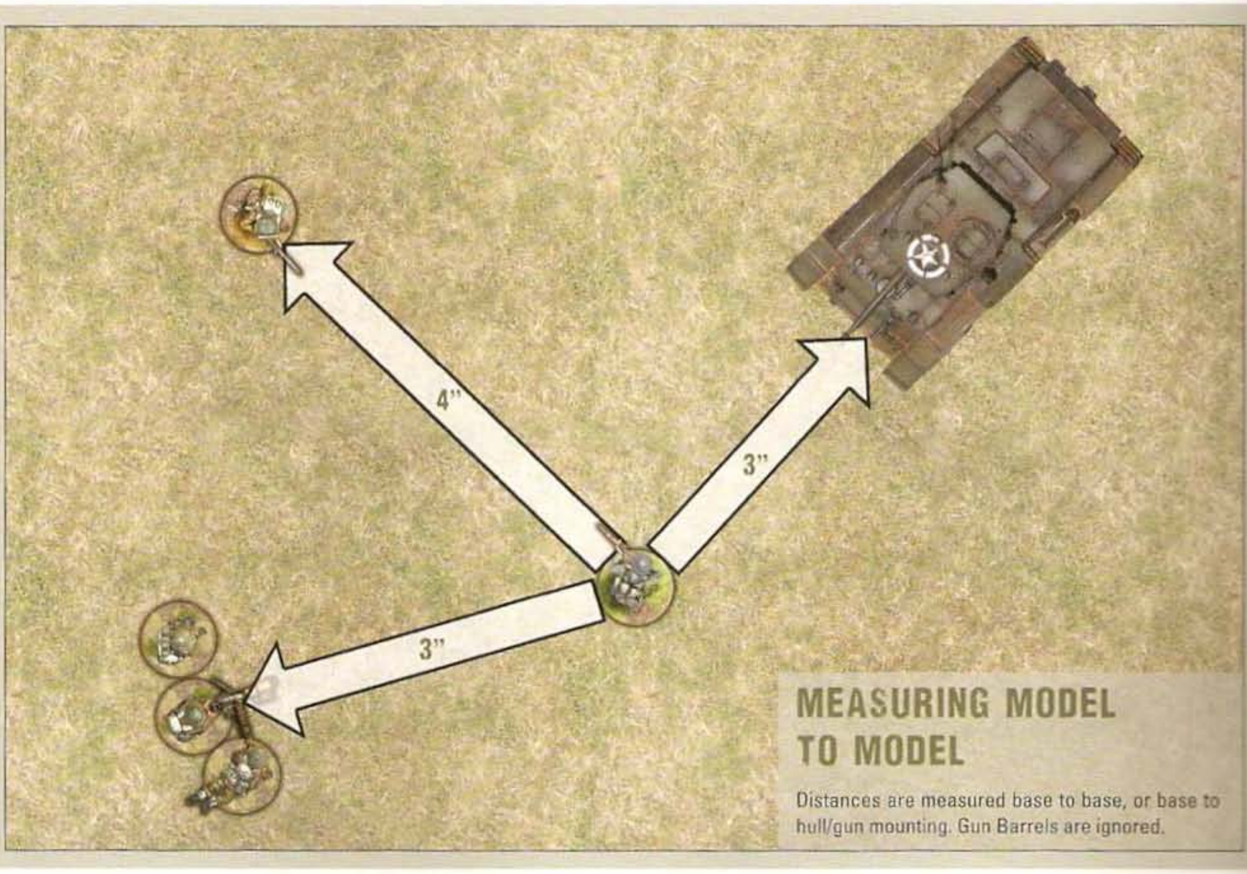
The distance between two models is always measured between the closest points of their bases. If the models do not have a base, use their torso, hull, gun carriage, or comparable 'core' portion of the model. Ignore parts of a model that might stick out like gun barrels, bayonets, outstretched arms, radio aerials, etc.

DISTANCE BETWEEN UNITS

Most infantry units are made up of two or more models – often five or ten. The distance between two different units is always measured between the bases of the closest models in the units. Follow the same guideline given above for models without a base.

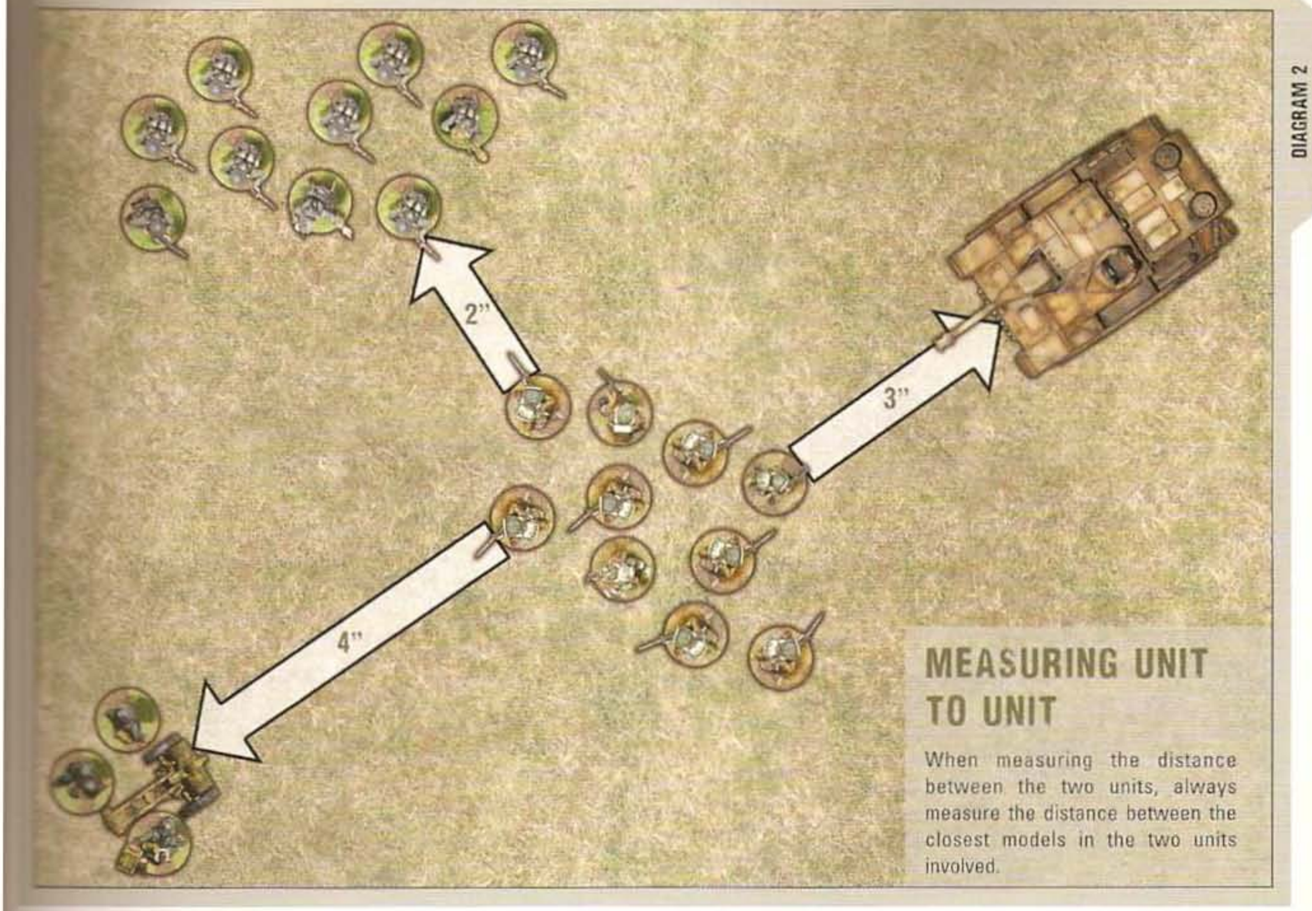
British Centaur 95mm close support tank

DIAGRAM 1



MEASURING MODEL TO MODEL

Distances are measured base to base, or base to hull/gun mounting. Gun Barrels are ignored.



MEASURING UNIT TO UNIT

When measuring the distance between the two units, always measure the distance between the closest models in the two units involved.

NO MEASURING BEFORE DECIDING

Players are not allowed to measure distances before making a decision. A player must always declare his intention before measuring. For example, you might say, "I'm moving this infantry squad in such and such a direction" or, "My anti-tank gun is firing at that tank" and then proceed to measure. This means that, just as in reality, players cannot be sure about distances and ranges until they 'go for it'.

SIGHT

The game rules that follow often refer to what a 'what a man can see' or line of sight. Establishing what an individual trooper may or may not be able to see does require a little necessary judgement on the players' parts, but this will soon become habitual after a few games have been played.

To determine what a man can see, lean down and take a look from behind the model to get a soldier's eye view of the battlefield. If the torso or head of an enemy model can be seen clearly we assume the soldier can see that enemy. If only a peripheral part of a model can be seen such as an arm or leg, backpack, or the barrel of a weapon, then we assume the enemy cannot be seen because there are just too many obstructions or distractions. Remember, in real life all the troops on the battlefield would be in continuous motion, infantry darting from one position to another, vehicles speeding along, and crews of field guns crouching behind the cover of their gun shields. A real soldier's view would be the briefest of glimpses, very likely with bullets zipping around and shells exploding nearby.

Vehicles, artillery pieces, and other bulky items of equipment are easier to see being somewhat larger than the

A British 6 pdr anti-tank gun lies in ambush

average man. Once again, so long as some core part of a vehicle model, artillery piece or item of equipment can clearly be seen from the soldier's eye view we assume that individual can see the enemy. If all that can be seen is a bit of wheel or track, a radio aerial, exhaust pipe, the barrel of an artillery piece, or some other extraneous detail then we assume the trooper cannot see effectively amongst the din, smoke and dust of battle.

TABLE BOUNDARIES

The game is always played within the boundaries of the area available. Troops are not allowed to move beyond the edges of the table during play, except where this forms part of an outflanking move or objective as described in the game itself. Of course this is not strictly realistic, as no such restriction applies in the real world, but it is a necessary adaptation to playing games within a limited space.

The models in your army must be organised into units prior to the game. The most common type of unit is an infantry section or squad. This is normally made up of around five to ten men representing soldiers from one of the warring nations. Other units may have fewer models, such as a gun and crew, or a machine gun team. Some units comprise a single model, as in the case of a tank or armoured car.

French Char B1 bis

TYPES OF UNIT

All units belong to one of the following three basic types:

INFANTRY

By far the most common type of unit in Bolt Action as in reality, this category includes all soldiers fighting on foot and armed with man-portable weapons. For our purposes we shall also refer to units normally mounted on bicycles, motorbikes and even horses as 'infantry' as, in most cases, such troops will fight on foot in our game.

ARTILLERY

This includes all large calibre guns and comparable weapons on a carriage or fixed mount. A unit of artillery consists of the gun model itself and a number of crew models to fire and manoeuvre the weapon. Most guns can be manhandled rather slowly, or towed by a tractor or similar vehicle.

VEHICLES

This category includes all combat, transport and towing vehicles, from trucks, jeeps and armoured cars to self-propelled guns, tank destroyers and tanks. Vehicle units normally consist of a single vehicle model including driver and fighting crew where appropriate.

FORMATION

If a unit consists of more than one model, its members must remain in formation. This means that each time the unit moves the models in it must form a group with no member separated from the group by more than 1". If an individual should become separated from his unit, perhaps because other models have fallen casualty and have been removed, then this must be corrected as soon as possible.

ONE-INCH GAP

To help prevent units becoming muddled or positions confused during the battle, units must always end their move more than 1" from any other unit whether friend or foe. In other words, there must be a gap of more than 1" between units once a unit has moved. The exception is that units *assaulting* an enemy move into contact and fight close combat as explained later.

As well as ending its move more than 1" from other units, no models in a unit can move within 1" of any enemy unit during the move itself. A distance of more than 1" must be maintained. Once again, an exception is made for units assaulting an enemy as explained later.

IMPORTANT NOTE

The basic game rules are written with units of infantry in mind. This allows us to explain how the rules work without overcomplicating matters with the numerous special rules that apply to tanks, howitzers and suchlike. The rules for different types of artillery and vehicles are explained separately in their own sections.

During each turn, order dice are drawn 'blind' from the dice cup one at a time. When a player's order die is drawn he must use it to activate a unit. Once all the dice have been drawn, or once all the units capable of acting on orders have done so, the turn ends. At the end of each turn the dice are returned to the dice cup ready for the next turn, except for ambush and down orders which can alternatively be retained from turn to turn as explained below.

PREPARING TO PLAY

Before the game begins the players must each place an appropriate number of order dice in the dice cup. This is one die for every unit in their force, including for units that begin the game in **reserve** as described later. For example, if a force of twelve German (blue) units is facing a force of sixteen American (green) units, then the cup starts off with twelve blue order dice and sixteen green order dice. Should you be using some other tokens rather than order dice then you would have twelve blue tiddlywinks and sixteen green tiddlywinks, or blue and green card chits, or whatever.

TURN SEQUENCE

Bolt Action is played in turns. A battle normally lasts for a set number of turns as discussed later. In each turn the players follow the sequence as shown below. For the sake of explanation, from this point we shall assume that players are using order dice rather than chits or other tokens, but the process is basically the same whichever method is employed.

1. ORDERS PHASE

1. Draw an order die from the dice cup and hand it to the appropriate player.
2. The player chooses one of his units and gives it an order. Place the order die next to the unit to show that it has received an order. Once a unit has been given an order it cannot be given another order that turn.
3. If necessary, the player takes an order test to determine if the unit follows the order.
4. The player executes the unit's resulting action.
5. Back to 1. Once all eligible units have received an order, the orders phase ends – move to the turn end phase.

2. TURN END PHASE

Return all order dice to the cup, except for those units wishing to retain an *Ambush* or *Down* order as noted later.

Units that are destroyed during the turn lose their order dice. If a destroyed unit has already taken its action remove the order die placed next to it. If a destroyed unit has not already taken its action remove a die from the dice cup. Order dice lost as a result of units being destroyed are removed from play and placed aside where both players can see them. When units are lost this therefore reduces the number of dice available for the following turn.

Smoke break! A moment's respite.

When a unit receives its order die, this represents the squad's leader telling his men what to do. Ultimately, of course, this is you, the player, deciding how you want your troops to act that turn. However, if troops are under fire, there is a possibility that the men will disappoint both you and their squad leader, and decide all they really want to do is to keep their heads down.

The choice of orders a player can issue to his units is represented by the six faces of the order die as follows:

ORDER	SUMMARY OF ACTION
1 *Fire*	Fire at full effect without moving
2 *Advance*	Move and then fire
3 *Run*	Move at double speed without firing. Also used for assaulting
4 *Ambush*	No move/fire, but wait for opportunity fire
5 *Rally*	No move/fire, but lose D6 pin markers
6 *Down*	No move/fire, but gain an extra –1 to be hit

FIRE

The models in the unit do not move, instead they open up with their weapons at their chosen target(s) at full effect. Some large and bulky weapons can only be fired by units receiving this order, as they require the firer to be stationary. See the rules for Shooting p31.

ADVANCE

The unit can move and then fire its weapons. The unit's shots will be less accurate than if it chooses to remain stationary and fire, and some of its weapons may not be able to fire at all. See the rules for Movement p25 and for Shooting p31.

RUN

The unit moves at double speed, but cannot fire any of its weapons. See the rules for Movement p25.

AMBUSH

The unit does not move or fire. Instead, the soldiers take up firing positions and wait for a target to present itself. See the rules for Shooting p31.

US Airborne advance cautiously past a knocked out Jeep

RALLY

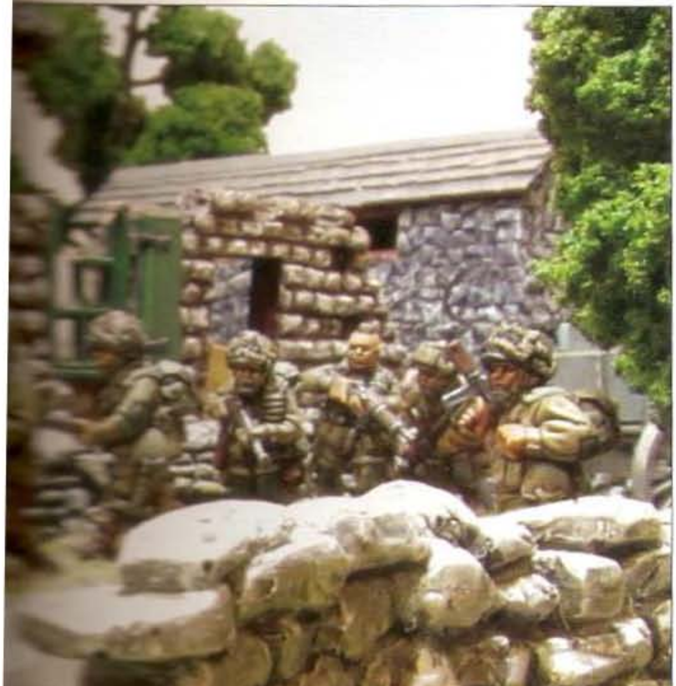
The unit does not move or fire. Instead, the troops pause for breath, patch up the wounded, pass ammo around and regroup ready for the following turn. See Pinned below.

DOWN

The unit does not move or fire. Instead, the troops hit the dirt and keep their heads down as far as possible, making maximum use of whatever cover is available. See the rules for Shooting p31.

PINNED

Normally, units do what you order them to do without question. However, units that find themselves under enemy fire are less reliable, and sometimes they will ignore their orders altogether. This is represented by the rules for **pinning**. **Pinned** troops are indicated by markers placed on the tabletop next to or behind the affected unit. Units that have taken a great deal of fire will gain more markers and will become increasingly reluctant to obey their orders.



If you do not wish to clutter the gaming table with markers it is perfectly acceptable to note down where units have been pinned instead. However, this does involve a certain amount of paperwork, so on the whole we would recommend that suitable and unobtrusive pin markers are used where possible.

PIN MARKERS

Every time a unit is fired at by an enemy unit and suffers one or more hits as a result, place a single **pin marker** next to it. Units that are shot at by several enemies, or over a number of turns, can potentially rack up multiple pin markers: they become more firmly pinned down and the chances of them obeying their orders are reduced even further.

In the case of some particularly heavy weapons two or more pin markers can sometimes be scored against a target in one go. For example, if a heavy artillery barrage hits a unit it is likely to be more effectively pinned down than it would be by rifle fire. However, in general the fire of a single unit adds one pin marker to the target. Note that the number of hits caused is not important here: the only thing that matters is the fact that the target has been fired at and has been hit at least once.

It can sometimes happen that one of your own units will fire on another of your units accidentally. This is referred to as 'friendly fire'. Hits from friendly fire also result in a unit taking pin markers as if the target had been an enemy.

EFFECT OF PINNING

Each pin marker on a unit lowers its morale value by one. Morale is discussed on page 22 and affects a unit's ability to obey its orders. A regular infantry has a morale value of 9. If it has two pin markers on it, its morale value would therefore be reduced to 7. If it has five pin markers its morale value would be reduced to 4.

Pinning also reduces a unit's ability to fire effectively as we shall see later on; however, for purposes of understanding how orders work it is sufficient to know that each pin marker reduces a unit's morale value by –1.

ORDER TESTS

A unit that is not pinned executes any order it receives automatically. The order die is placed next to the unit and the corresponding action is carried out without any need to take an order test. There are some situations where orders are not received automatically and a test must always be made regardless of whether the unit is pinned – but these are occasional exceptions and need not concern us for now.

If a unit has one or more pin markers it is considered to be pinned down and might not obey its order. After placing the order die next to the unit, the player must take an **order test** to see if the order is obeyed. Roll 2D6 and compare the result with the unit's modified morale value as described above.

If the 2D6 result is equal or lower than the unit's modified morale value, the unit passes the test. A unit that passes an order test immediately discards one pin marker, and then executes the order it has been given. This represents the unit pulling itself together and recovering some of its discipline before obeying its instructions. For example, if a regular unit has two pin markers its modified morale value is 9-2 =7. So, your 2D6 roll must score a combined total of 7 or less to pass the test. Any roll of between 2 and 7 will therefore succeed and any roll of between 8 and 12 will fail.

If the 2D6 roll is higher than the unit's modified morale value the test is failed. A unit that fails its order test does not discard any pin markers and must then execute a down action rather than the order intended. However, if a double six is rolled then not only is the order failed but the unit must roll again on the FUBAR chart given opposite and take the action indicated. This means that the unit has panicked, misunderstood its order, or that something has gone terribly wrong somewhere along the line.

Regardless of any modifiers that apply to a unit's morale value, the highest morale value is 10 and the lowest is 2. This means that order test rolls of 2 will always succeed regardless of any modifiers that apply, and results of 11 or 12 will always fail.

PINNED AND DOWN

There is one important exception to the rules for taking order tests. If you order a pinned unit *down* no order test is taken. The unit goes *down* automatically. However, note that if you do this then the unit does not lose a pin marker, as it has not passed an order test.

PINNED AND RALLY

If a pinned unit is successfully ordered to *rally*, it will discard one pin marker because it has received a successful order, plus an additional D6 pin markers for the result of the action, thus effectively discarding D6+1 pin markers. Roll a die and add 1 to the score to determine how many pin markers are removed.

FUBAR!

If an order test roll comes up two sixes then not only is the order not given but the player must immediately roll on the chart below. Roll a die to find what action the unit takes.

FUBAR CHART

1 or 2	**Friendly Fire** The unit does not move and opens fire against a friendly unit, mistaking it for enemy. Place a *fire* order by the unit. The opposing player chooses the target. The target must have an enemy unit within 12", as proximity to enemy is precisely what has caused the 'friendly fire incident'. If no such target is available the unit does not fire and goes *down* instead.
3, 4, 5 or 6	**Panic** The unit executes a *run* order and must move as fast as possible away from the closest visible enemy unit. If no enemy are visible the unit goes *down* instead.

TROOP QUALITY AND MORALE

Not all troops are the same. Some are highly trained, motivated, or experienced, whilst others are hurriedly conscripted and committed to the battlefield with little training or equipment. This is represented in the game by the **morale** value of the troops. As we have already discovered, this is a measure of how likely the unit is to follow orders under fire. Troops are divided into three different categories as follows:

QUALITY	MORALE	EXAMPLES
Inexperienced	8	Conscript, poor or little training, no combat experience
Regular	9	Normal training and some combat experience
Veteran	10	Special training (paras, commandos, marines) and extensive combat experience

SQUAD LEADERS

Infantry units normally include a leader. In the case of an infantry squad this would typically be a sergeant, corporal, lance corporal or an equivalent rank. These non-commissioned

Chindits take cover at the signal from their native guide

officers (NCOs) are an integral part of their unit and cannot be deliberately separated from it. If an infantry squad's NCO is killed, the unit suffers a permanent –1 penalty to its morale value. Crewed weapons and weapons teams don't have specific models as leaders, but if the team is reduced to one crewman it also suffers a –1 penalty to its morale value in the same way.

PIN MARKERS

Remember that each pin marker on the unit also results in a –1 penalty to its morale value. A veteran unit with one pin marker has a morale value of 9, whilst the same unit with four markers has a value of 6, and so on.

ROUTED UNITS

If a unit has as many pin markers as its original morale value, or more, then it is automatically destroyed – its morale has entirely collapsed and the unit is routed from the field. Thus inexperienced troops are routed once they have 8 pin markers, regular units 9, and veteran units 10. This won't happen very often because units will usually be wiped out long before their morale collapses in this way.

MAXIMUM AND MINIMUM MORALE

Regardless of how many pin markers it has, or how many bonuses or penalties apply, a unit cannot have a morale value of greater than 10 or less than 2. 10 is the best value possible and 2 is the worst.

RETAINING AN ORDER AT THE END OF THE TURN

Normally, all the order dice used to activate units during the turn are gathered up and placed back in the dice cup at the end of the turn. There are, however, two notable exceptions.

SNAFU!

Fubar is US army slang and means useless, broken or otherwise 'Fouled Up Beyond All Recognition' or something much along those lines. Another term of similar sentiment was Snafu, which stands for 'Situation Normal – All Fouled Up'.

TOP SECRET

ORDERS AND TERMINOLOGY

During a game we usually refer to units that have been given a *fire* order as 'firing', a unit that has been given as *advance* order as 'advancing' and so on for units that are running, in ambush, rallying or going down. We also use these same terms throughout the rule book where the intent is sufficiently clear, but where we need to be precise we usually describe a unit that has a *fire* order placed next to it as enacting, undertaking, conducting or otherwise engaged in a **fire action**, and so on for an advance action, run action, ambush action, rally action and down action. Although it might sound a bit of a mouthful to say troops are 'taking part in a fire action' this is plainly less circuitous than describing the same men as 'a unit that has a *fire* order die placed next to it.'

AMBUSH

Units that end their turn in *ambush* can retain their order or return it to the dice cup as usual. If the player decides to retain the *ambush* order, the order die is left where it is and the unit starts the next turn already in ambush and ready to shoot at a target that presents itself. This allows a unit to stay in ambush from turn to turn, watching and waiting for the enemy to make a move.

DOWN

Units that end their turn *down* can retain their order or return it to the dice cup as usual. If the player decides to retain the *down* order, the order die is left where it is and the unit starts the following turn already down. A pinned unit that does this also loses one pin marker **immediately** instead of returning its order die to the dice cup. This allows a pinned unit to recover its effectiveness without passing an order test, so long as it stays down, representing the unit's leader regrouping his men under fire.

Soviet partisans set out to ambush Fritz…

Fire and manoeuvre are the keys to success and making the most of cover and good firing positions are therefore crucial to both sides. There will be times when rapid movement is called for, either to take a position ahead of the enemy or to mount an assault in the face of enemy fire. Other situations will call for a cautious advance with the benefit of covering fire from stationary units nearby.

ADVANCE AND RUN MOVES

An advancing infantry unit can move up to its basic move rate. This is usually 6" in any direction. Simply move each model up to a maximum of 6". Remember that a unit must maintain a formation, so once the whole unit has moved no model can be separated from the formation by more than 1". Remember that it is also necessary to leave a space between different units of more than 1" for the sake of clarity as already explained.

A running infantry unit can move as described above but at double its basic move rate, i.e. usually 12".

Note that we permit our infantry to change direction any number of times during their move, allowing them to move round corners, around rubble, around other models, and so forth. This does not matter so as long as the total distance moved is not greater than 6".

INTERPENETRATION OF FRIENDLY UNITS

When a unit of infantry moves we allow individual models to move through the positions of other models in the same unit,

Easy Company take it easy…

of other friendly infantry or artillery units. Just move the models through their friends. We assume that individuals get out of the way to allow their friends to pass. However, remember that once a unit has finished moving it must be more than 1" from any other unit as already explained.

We don't allow tanks or other vehicles to move through friends, or to be moved through by friends. Vehicles must negotiate their way around friends whether they are infantry, artillery or other vehicles.

TERRAIN

At the beginning of the game, before choosing sides and deploying any troops, it is necessary for the players to rate the various terrain features on the battlefield as described below. It is likely that most of the battlefield will be clear or open ground, where troops and vehicles can move without impediment. Other parts of the battlefield, such as woods, ruins, waterways – and perhaps quarries, escarpments, sand dunes or marshes – can be harder to move over or through. Remember, it is up to the players to decide how to rate the various features used to create the battle scene. There is no need to be rigid or even consistent about such things. For example, a light scattering of woodland might be counted as either open ground or as rough ground – both are perfectly plausible.

MOVING ON OR OFF THE TABLE

MOVING ON

In some situations models will begin the game 'off table' which means they are waiting behind the area designated as the battlefield, or perhaps they are executing a flanking manoeuvre off to one side. When these units move on to the battlefield, the player picks a point on the table edge and measures the unit's move from that point. Units that move on to the battlefield must be given an advance or run order to do so, but note that they are not allowed to make an assault upon enemy units in the same turn. We will explain how assaults work later on (see p57).

MOVING OFF

Units cannot voluntarily move off the area designated as the battlefield except in circumstances where the rules specifically indicate otherwise. Where a unit is allowed to move 'off table', it is removed in its entirety as soon as any of its models moves into contact with the table edge.

IMPASSABLE

Some features on the battlefield can be rated as completely impassable. This means all units must go round these features: no units can move onto or through them. The most obvious examples would be a steep gorge, a soaring rocky crag, a large body of deep water, or a very high and substantial wall. Other things that might be considered impassable include wrecked vehicles, collapsed or burning buildings, dangerous marshes, quicksand and fortifications that are intended to present impassable barriers to the enemy.

ROUGH GROUND

We use the term rough ground to describe areas of terrain that are difficult to move through, and which will therefore slow down troops and in some cases prevent them from moving altogether. Different kinds of troops are affected in different ways, as shown on the table overleaf. Infantry are only allowed to move through rough ground by means of an advance, for example: they cannot move through at a run. The sort of features that would typically be rated as rough ground include dense woodland or undergrowth; loose ground such as deep mud, sand or scree; and areas of ruinous buildings or rubble.

OBSTACLES

By obstacles we mean things such as field hedges, dry-stone walls, ditches, and perhaps streams or other waterways that present a barrier to movement. Obstacles are useful to the opposing armies because they make troops difficult to see and often provide cover. Infantry are only allowed to cross an obstacle whilst advancing and not whilst running. Other kinds of units are affected differently as noted on the table overleaf.

BUILDINGS

We will consider buildings at greater length in their own rules section. Buildings can include domestic houses, industrial buildings, and military installations such as bunkers or pillboxes. We normally allow infantry to enter and fight from or within buildings, but some players are happy to treat buildings as impassable in order to simplify matters. This is up to players to decide for themselves.

ROADS

If you are fighting around a village, in the outskirts of a town, or even around a farm or factory, it is likely there will be roads or lanes to facilitate transport within and through the area. Although these roads make no difference to infantry, they enable vehicles to move more quickly as noted on the table overleaf.

TERRAIN TABLE

The terrain table indicates how different kinds of troops are affected by different terrain.

TERRAIN CATEGORY	INFANTRY	ARTILLERY	WHEELED VEHICLES	TRACKED VEHICLES
Open Ground	OK	OK	OK	OK
Rough Ground	No Run	No*	No	No Run
Obstacle	No Run	No	No	OK*
Building	OK	No*	No	No (!)
Road	OK	OK	×2	×2

Key:

OK – The unit can move through the terrain without hindrance – this is the default or normal rate for all kinds of troops over open ground.

OK* –The unit can cross this kind of terrain without hindrance unless it has been designated as an anti-tank obstacle, or impassable bocage, or the equivalent, in which case it is impassable to all types of vehicle.

No Run – The unit cannot cross or move within this kind of terrain if undertaking a run action, but can cross or move over with an advance action.

No – The unit cannot enter or move within this kind of terrain at all.

No* – The unit cannot enter or move within this kind of terrain, except that it can be deployed within the terrain at the start of the game. In this case it cannot move once deployed. This represents situations where guns are 'dug in' to positions prior to the battle as discussed later in the section on Artillery.

No (!) – The unit cannot enter or move within this kind of terrain, except that heavy and super-heavy tanks may move through and demolish some buildings in some situations. See the rules for buildings on p99.

×2 – The unit's move rate is doubled if it moves entirely along a road or track. This enables vehicles to move rapidly along roads where the opportunity permits.

TOP SECRET

THE VICKERS MACHINE GUN

The .303 calibre Vickers machine gun was the principle support machine gun used by British and Commonwealth Machine Gun Battalions and MMG (Medium Machine Gun) Companies. The number of crew varied depending on the type of unit involved, but from 1942 onwards this was usually four. Between them these men had to carry not only the gun and ammunition, but also the heavy brass tripod and a jerry can of water, the Vickers being a water-cooled machine gun. One of the crew would be the driver of the universal carrier that was typically used to transport the gun. In the early years of the war the 15 cwt truck performed this role. The Vickers had a maximum range of 4,500 yards and could fire up to 600 rounds per minute. Because of its weight the Vickers was at its best when firing upon fixed positions, where it could deliver plunging fire on the target from long range. Unlike air-cooled machine guns such as the British Bren and German MG42, it was also capable of lengthy periods of sustained fire without overheating the gun's barrel.

Tough and reliable, the Vickers .303 was a survivor of World War I and served the British armed forces throughout World War II.

Our troops command vast firepower in the form of squad-based automatic weapons, hand-held anti-tank projectiles, and long ranged mortars and machine guns. Deploying and manoeuvring skilfully will enable your infantry to bring their weapons to bear most effectively against their enemy.

WHO SHOOTS?

Units that have been given a *fire* or *advance* order can shoot, whilst units that have been given an *ambush* order can shoot when they spring their ambush – in which case their order is flipped to *fire*. Other units can sometimes shoot in special circumstances as described throughout the rules: for example, *reaction fire* during an assault.

SHOOTING PROCEDURE

When one of your units shoots follow the procedure below:

1. Declare target
2. Target reacts
3. Measure range and open fire
4. Roll to hit
5. Roll to damage
6. Target takes casualties
7. Target checks morale

DECLARE TARGET

Pick a target and declare you are opening fire. Except as noted below, a target is always one enemy unit. When a unit shoots, it fires **all** of its weapons at **one** target: for example, a tank, a squad of infantry, or an anti-tank gun and its crew.

When a unit opens fire only those models that can draw a clear line of fire to their target actually shoot. Any models unable to shoot will not fire, for example because they either can't see a target or because their weapons are out of range.

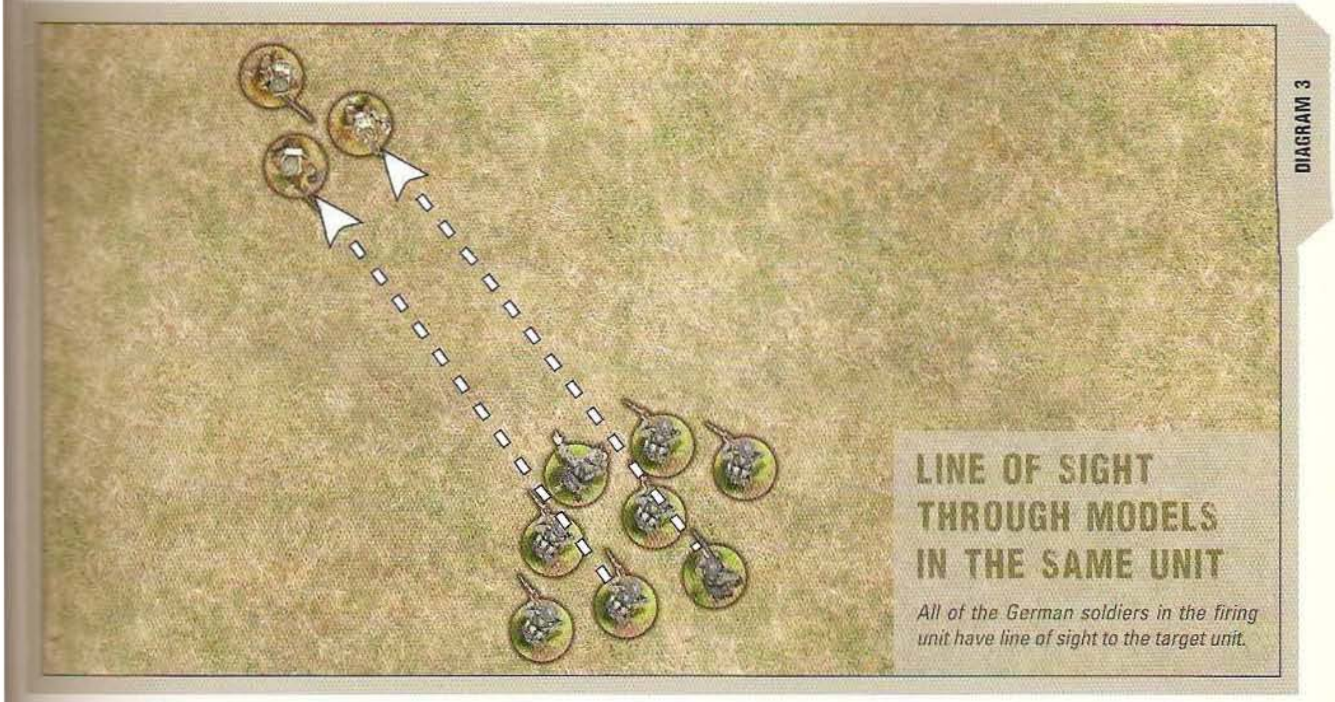
Note that we do make an exception for panzerfaust armed infantry, who are allowed to select a different target to the rest of their unit: see Dividing Fire p35.

Example: An infantry unit can see two enemy units – a machine gun team and an infantry squad further away. As the machine gun is already suppressed with two pin markers, the player decides to ignore it and declares that his unit is firing against the enemy infantry.

INTERVENING FRIENDS

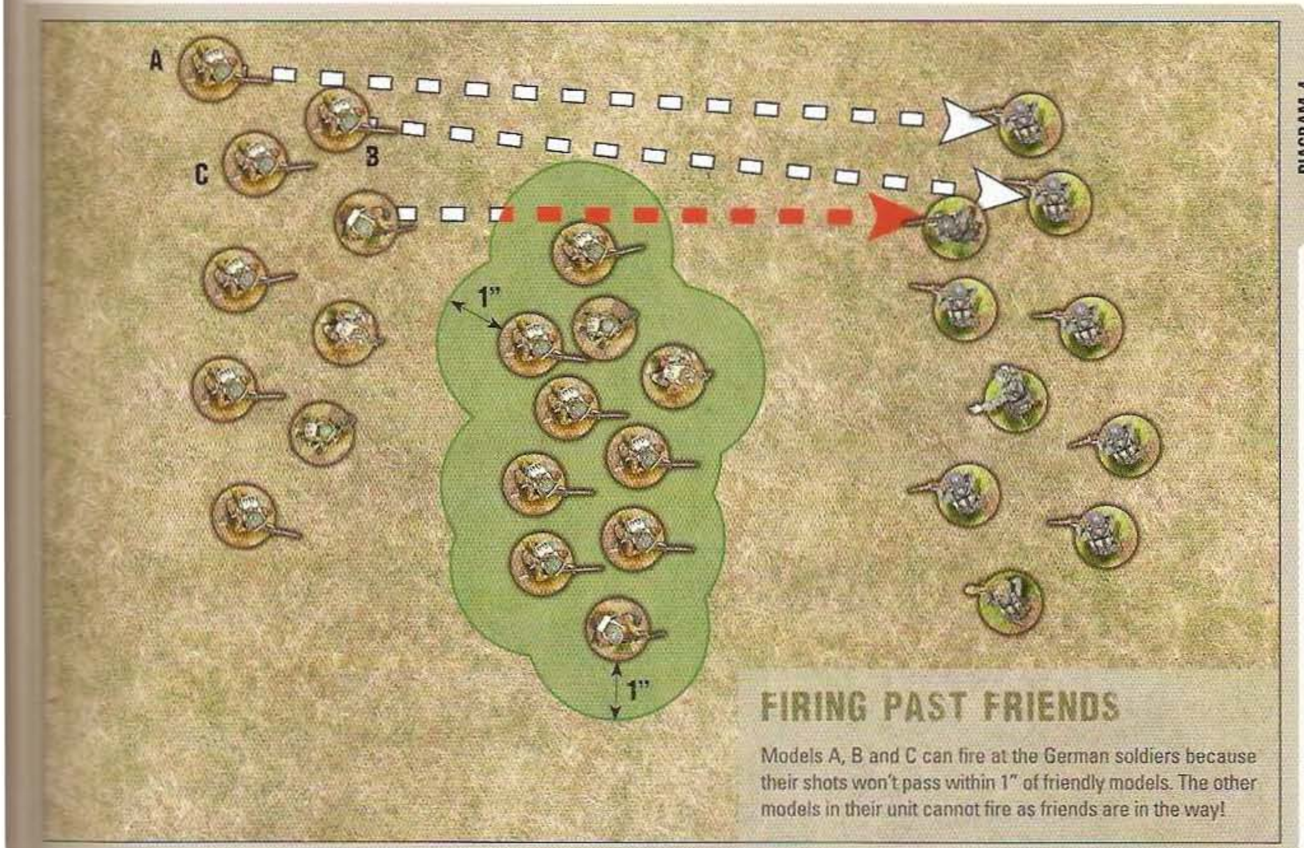
Infantry models are always allowed to see and shoot through other models in the ***same*** unit as if they were not there. This is because the unit is assumed to be in constant motion, troopers working as a team and not getting in each other's way. Sometimes you will find it convenient to momentarily lay down a model or place it aside whilst checking line of fire, and this is perfectly fine.

A US Marine resorts to his sidearm



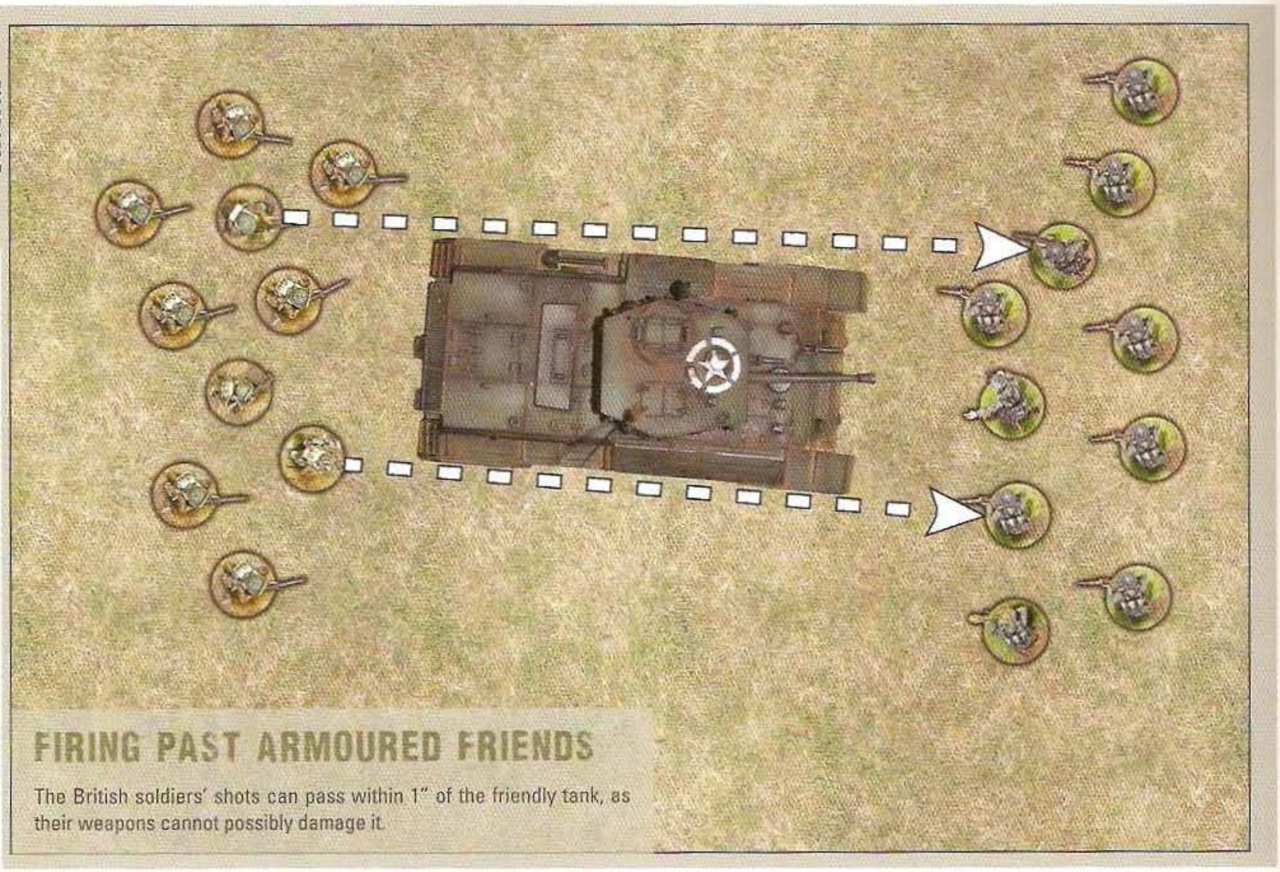
LINE OF SIGHT THROUGH MODELS IN THE SAME UNIT

All of the German soldiers in the firing unit have line of sight to the target unit.



FIRING PAST FRIENDS

Models A, B and C can fire at the German soldiers because their shots won't pass within 1" of friendly models. The other models in their unit cannot fire as friends are in the way!



FIRING PAST ARMOURED FRIENDS

The British soldiers' shots can pass within 1" of the friendly tank, as their weapons cannot possibly damage it.

Models are **not** allowed to shoot through other friendly units or to draw a line of fire within 1" of a model from another friendly unit. Even though a shooter may be able to see the target, the shot is not permitted if it would pass through or within 1" of a model from a different friendly unit. In such cases the friends are too close to the line of fire.

We make an exception to the rule that you can't draw a line of fire within 1" of your own side where shots cannot possibly score damage on the friendly unit. For example, infantry armed with small arms cannot possibly damage an armoured personnel carrier, so they are allowed to draw a line of fire within 1" of it. In such a case shooters must still be able to see the target to shoot – they cannot see 'through' the vehicle – but the closeness of the carrier does not block their fire.

The same exception also applies when shooting mortars and howitzers over the heads of friendly units using *indirect fire* as explained later. These weapons fire with a high trajectory, lobbing shells high into the air so they fall onto the enemy from above. When mortar and artillery crews shoot indirect fire they can therefore shoot at any enemy they can see without intervening friends blocking their fire.

TARGET REACTS

If the nominated target has not yet taken an action that turn the player can, if he wishes, immediately order it *down*. If he decides to do so, pick an order die of the appropriate colour from the dice cup and place it next to the unit, showing it has gone down. This will make the unit more difficult to hit, reducing the consequences of being shot at, but on the other hand it means the target expends its action for the turn.

Example (continued): The target has not taken any action yet so the opposing player could decide to order the unit down. The player decides against ordering his men to get down, judging that the shooters are out of range.

MEASURE THE RANGE AND OPEN FIRE

Every weapon in the game has a maximum **range** at which it can fire effectively. For example, a rifle can hit targets up to 24" distant whilst a medium machine gun can hit targets up to 36" away.

Each weapon has a number of **shots**. This is the number of dice rolled on behalf of the model firing the weapon. For example, a rifle has just 1 shot, whilst a medium machine gun has 4 shots representing its rapid rate of fire.

Every model that is within range and which can draw a line of fire to at least one enemy model in the target unit shoots at the nominated target. Note that players cannot hold back a unit's fire – when a unit fires every model that can shoot must shoot. Check the range from each shooter to his target to make sure he is within range. If within range, roll a D6 for each **shot** the weapon has as shown on the weapons chart. If the target is out of range then the shot automatically misses and there is no need to roll.

Example (continued): The player measures the range to the target and finds that three of his riflemen and the sergeant's submachine gun are out of range, but the squad's light machine gun and four riflemen are in range. He can therefore fire three shots from the machine gun and one each from the four rifles, making a total of seven shots.

DIVIDING FIRE

If a unit of infantry includes a proportion of men armed with one-shot anti-tank weapons – such as a panzerfaust – then any of these models are allowed to direct their fire against an enemy vehicle, even if the rest of their unit shoots against a different target. This enables a unit to split its fire between two different enemy units and is therefore an exception to the rule that normally prevents this.

ROLL TO HIT

Each D6 rolled has a chance of scoring a hit on the target. Successful hits represent accurate fire placed in the immediate vicinity of the target, with a good chance of killing or incapacitating an enemy.

Each die roll of **1 or 2** misses and is ignored, whilst each die roll of **3, 4, 5 or 6** results in a hit. This is usually expressed as a roll of 3+, meaning a roll of 3 or greater on the die. However, there are a number of factors that affect this roll, making it easier or more difficult to score a hit as explained below.

HIT MODIFIERS

The basic 3+ chance of hitting assumes that the firer is not distracted by the battle raging around him, has time to aim his shots, and that the target lies in plain view without the benefit of cover of any kind. During a firefight this will rarely be the case, and a target can be considerably more difficult to hit as

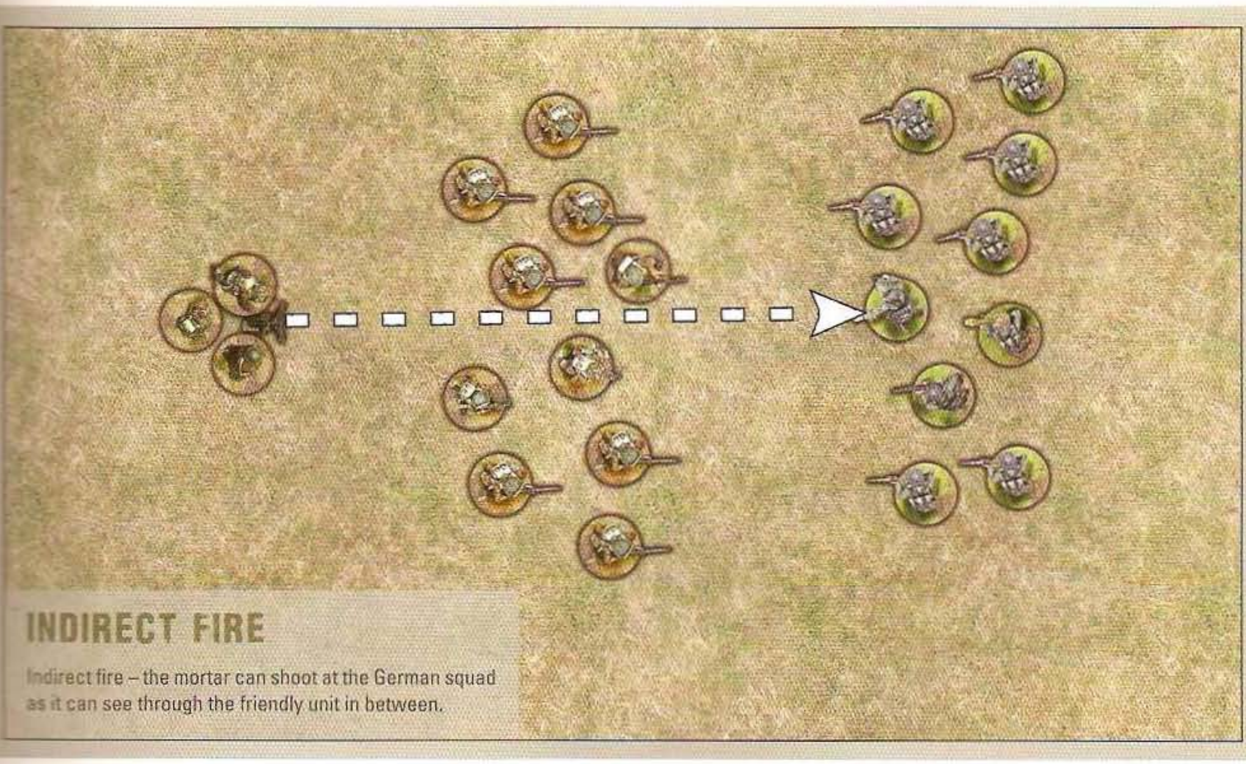


DIAGRAM 6

INDIRECT FIRE

Indirect fire – the mortar can shoot at the German squad as it can see through the friendly unit in between.

a result. This is represented by means of the following modifiers.

HIT MODIFIERS	
Shooting at point blank range	+1
Per pin marker on the firer	–1
Long range	–1
Inexperienced	–1
Fire on the move	–1
Target is 'down' infantry or artillery	–1
Target is a small unit	–1
Target is in soft cover	–1
Target is in hard cover	–2

Shooting at point blank range – if a target is very close it is easier to hit. If the target is within 6" shooters receive this bonus to their roll to hit.

Per pin marker on the firer – if the shooters are pinned down they will be more concerned about keeping a low profile than aiming carefully at the enemy. For every pin marker on the firing unit, the firer suffers a –1 to hit modifier. So, two pin markers is –2, three pin markers is –3, and so on.

Long range – each weapon has an optimum range beyond which it loses accuracy. This modifier applies if the target is at a distance of over half the maximum range of the weapon. Note that this may mean some shooters in the same unit might require a greater score to hit than others.

Inexperienced – inexperienced or poorly trained troops are far less likely to hit anything. Inexperienced units suffer a –1 penalty to their roll to hit.

Fire on the move – if the firing unit is making an advance action the unit is spending some time moving and its fire will be less accurate. Hence the unit suffers this penalty to its roll to hit.

Target is 'down' infantry/artillery – this applies if the target unit is either infantry or artillery that has gone down, as shown by the order die placed next to it, individual soldiers laying flat trying to offer the smallest possible target.

Target is a small unit – this applies if the target unit consists of either one or two infantry models. One or two men can easily escape attention on a crowded battlefield. Note it doesn't matter how many men were in the target at the start of the game – it is the number of men in the target when it is shot at that counts.

US Airborne advance through a ruined town, supported by an M4 Sherman

Fallschirmjäger ambush!

Target is in soft cover – this applies if the majority of the target unit is in soft cover from the point of view of the majority of the models firing against it. For more about cover see the box out on p39.

Target is in hard cover – this applies if the majority of the target unit is in hard cover from the point of view of the majority of the models firing against it. For more about cover see the box out on p39.

NIGH IMPOSSIBLE SHOTS

If penalties to the score needed to hit a target mean that a die roll of more than 6 is needed it is still possible to shoot – though the chances of success are small. Open fire as normal rolling one die per shot. Pick any dice that have rolled a 6 and roll them again. Any further rolls of a 6 hit the target – nice shot! Although this means it is necessary to roll a 6 followed by another 6 to score a hit, it is still well worth an attempt.

PINNED

If a shooting unit scores one or more hits place a single pin marker on the target. Note that it doesn't matter how many hits a unit scores on the target; so long as at least one hit is scored the target takes a single pin marker. There are some very heavy weapons that inflict more than one pin marker when hits are scored, but these are exceptions that need not concern us immediately. See the Orders section for more about how pinning works.

Example: The player calculates the chances of scoring a hit. The basic score needed is 3+, but the shooters suffer a –1 because they moved this turn (with an advance order) and a further –1 because both the rifles and the machine gun are firing at targets that are over half of their maximum range away. Therefore the player will need to roll at least 5s to score hits. The dice are rolled and get three hits, a very good result. Because the shooters scored at least one hit, a pin marker is placed on the target.

ROLL TO DAMAGE

Pick all of the dice that scored a hit and roll them again to see if the target suffers damage and takes casualties. The score needed to inflict a casualty depends on the **damage value** of the target, as shown in the table overleaf. We have included damage values for vehicles including tanks to give an idea of relative values. Heavy weapons add a modifier to the damage roll, allowing for a score of greater than 7. This is described in detail in the section on Weapons p43. Regardless of any modifiers that apply, a roll of a 1 on a die is always a failure.

DAMAGE VALUE TABLE

TROOPS AND SOFT-SKINNED TARGETS	RESULT NEEDED
Inexperienced infantry or artillery	3+
Regular infantry or artillery	4+
Veteran infantry or artillery	5+
All soft-skinned vehicles	6+
ARMOURED TARGETS	**RESULT NEEDED**
Armoured Car/Carrier	7+
Light Tank	8+
Medium Tank	9+
Heavy Tank	10+
Super-heavy Tank	11+

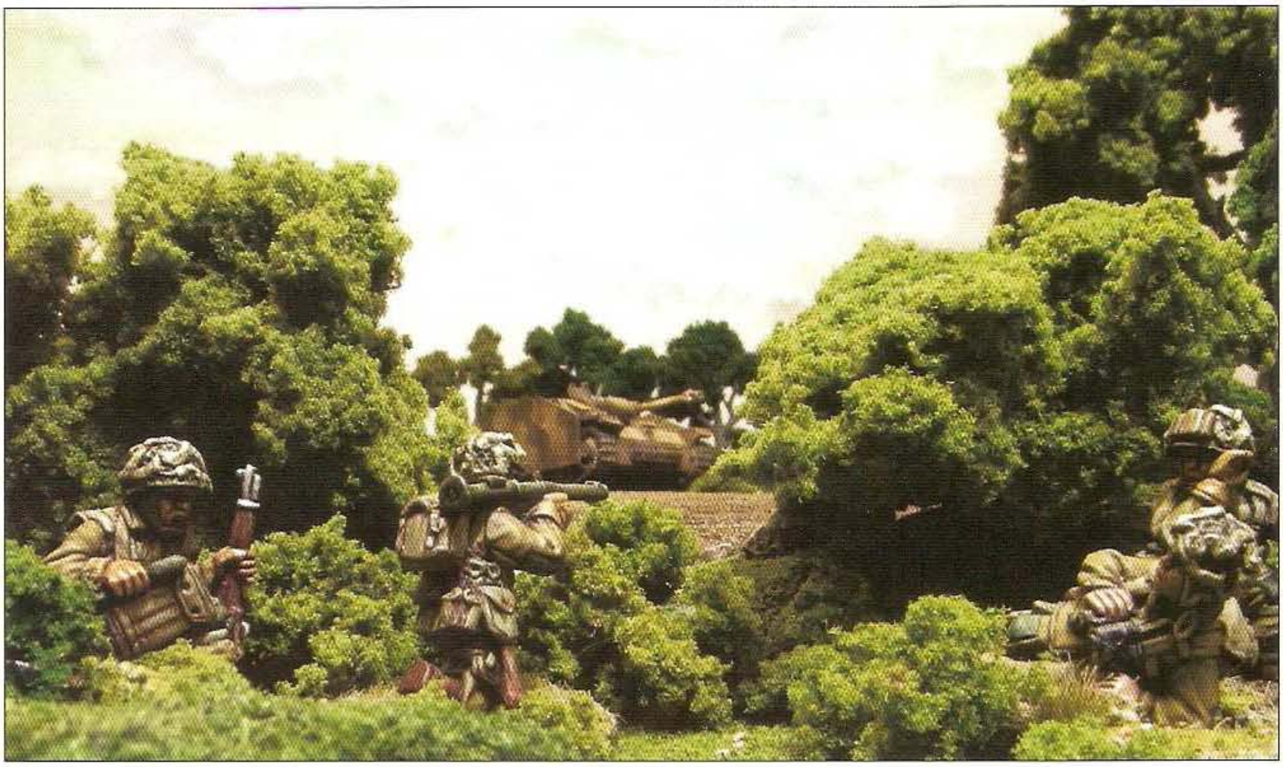
Example: If a regular infantry unit is hit by rifle fire then a die is rolled for each hit and all further rolls of 4, 5 or 6 will score damage, i.e. rolls of 4+, or 4 or more. In this instance rolls of 1, 2 or 3 would fail to score damage and have no effect.

TROOPS, SOFT-SKINNED AND ARMOURED TARGETS

The damage table makes a distinction between *troops and soft-skins* with a damage value of up to 6+ and *armoured* targets with a damage value of 7+ or greater. This divides potential targets into two categories: soft targets that can be readily damaged by small-arms fire and armoured targets that can only be damaged by fire from heavy weapons.

We will describe the rules for different kinds of weapons in the following section. For now all it is necessary to know is that heavy weapons add a bonus to the roll to damage, making it possible to score more than 6. For example, a Browning .50 calibre heavy machine gun has a bonus of +1, so a die roll of 6 scores 6 +1 = 7.

Small arms and light automatic weapons such as rifles, submachine guns and light or medium machine guns don't add a bonus to damage. This means it is it is impossible to score more than 6 when rolling to damage using these weapons.



Steady...

COVER

In situations where most of the shooters in the firing unit can draw a clear line of fire to most of the models in the target unit, then no modifiers are applied for cover. It doesn't matter if cover obscures a few models in the target unit; so long as the majority of the shooters can clearly draw a line of fire to the majority of the target no modifiers for cover apply.

MAJORITY OF TARGETS OBSCURED BY TERRAIN OR OTHER MODELS

If the majority of the shooters in the firing unit cannot draw a clear line of fire to the majority of the models in the target unit then the enemy is in cover. If the target is in cover it is more difficult to hit (either –1 or –2 on the dice).

Cover is most likely to take the form of vegetation such as hedgerows or trees, or something more solid like rubble, wreckage or ruins. In other situations, the presence of other units, whether friends or foes, obscures a portion of the target making it harder for the shooters to draw a line of fire.

MAJORITY OF TARGETS WITHIN TERRAIN

A scattering of tree models, tumbled ruins, rocks and such like is assumed to stand for a fairly dense tangle of woodland, rubble, or rocky outcrop which is impractical to represent literally on the battlefield. It is enough that we know a wood is a wood, and we can easily imagine the tangle of undergrowth and closely packed tree trunks.

For practical purposes we assume that a unit is always in cover if the majority of its models are inside a wood or comparable area of terrain. It is convenient to assume all models whose bases touch the wood/etc. are within it, as this avoids any uncertainty in the case of troopers who may be partly inside.

SHOOTING THROUGH TERRAIN AND FROM COVER

For the reasons outlined above we also assume that where shooters draw a line of fire through woodland, over tumbled ruins, rocky outcrops, walls, hedges or other comparable terrain at a target beyond, then the target counts as in cover if the majority of the target models can only be shot at over or through such terrain.

Where troops are firing from directly behind a wall or similar obstacle, or from the edge of a wood at a target that is otherwise in the open, no penalty is applied on account of the wall/wood/etc. Models count as behind a wall when they touch it. Models count as at the edge of a wood when they are positioned touching its boundary. This simply recognises that troops can take up good firing positions along the edge of a wood or behind a wall and shoot without the wood or wall itself getting in the way.

NOT SURE?

In the vast majority of cases it will be obvious enough whether a target is in cover or not. However, sometimes it might not be so easy to make a judgement either because the situation is very marginal, or because it might be impractical to get the necessary model's eye view. To quickly resolve situations where it is otherwise impossible to make a clear judgement, simply roll a die to decide. On a roll of 1, 2 or 3 the target is in cover, on the roll of 4, 5 or 6 the target is not in cover.

SOFT OR HARD COVER?

Soft cover describes the sort of concealing cover that makes a target hard to pick out, but does not necessarily offer much in the way of physical protection. This includes woodland, hedgerows, and other vegetation such as leafy undergrowth and fields of tall crops. It includes friendly infantry units, artillery or soft-skins if these partly obscure a target and make it harder to see. Camouflage nets or mesh designed to conceal a target from plain view would also count as soft cover. Soft cover can also include fences and light wooden barricades or similar constructions.

Hard cover describes the kind of cover that offers real physical protection as well as a degree of concealment. This includes stone, brick concrete or similarly substantial walls or ruins, rocky outcrops, foxholes, ditches, and trenches or sandbagged defences. It also includes armoured vehicles that partially obscure the target, whether friends or foes.

Before the game begins it is important that the players rate the terrain according to type and decide for themselves what amounts to soft and hard cover.

For the Motherland! Soviet partisans open up on a German column

AMBUSH

When a unit has been placed in ambush, it is scanning the field waiting for a target of opportunity.

RESOLVING AMBUSH FIRE

Units that are in ambush can interrupt any advance or run made by any enemy unit to shoot at it. The ambushers can interrupt at any point during the move: before, during or as soon as movement is complete. The player whose units are in ambush declares when he wants his troops to open fire, and the target unit is positioned accordingly. The ambushing player flips the unit's Ambush order to fire and resolves the shooting as normal. If the target is not destroyed as a result, then the unit completes its action with whatever troops remain.

Note that a unit cannot usually spring an ambush against units that are not making an advance or run action. The exceptions are targets comprising artillery crewmen moving from gun to gun, and tank crews abandoning their vehicle as described in the sections on Artillery p73 and Vehicles p79.

FIRING AGAINST A UNIT IN AMBUSH

If a unit in ambush is shot at it can react by going down just like a unit that has not yet taken an action. In this case the order die is flipped to show that the unit is down and is therefore no longer in ambush. This is an exception to the rule stating that a unit can only go down if it has not yet received an order. This allows for the state of readiness of ambushing troops.

Example (continued): the enemy are regular troops, so each hit scored will need to roll 4+ to score damage. Three dice are rolled and two succeed in scoring damage on the enemy squad.

TARGET TAKES CASUALTIES

For every hit that scores damage the target unit loses one man as a casualty. Casualties represent soldiers stunned, wounded or killed in action – they may be dead or temporarily incapacitated. Either way they are out of action and the model is removed.

The player whose unit has taken casualties normally chooses which men to remove. This obviously means that casualties will fall amongst the most expendable men first – for example riflemen rather than machine gunners and squad leaders. In reality, if a squad's machine gunner were to be shot one of his comrades would take over the weapon, so it is entirely reasonable to remove ordinary troopers as casualties first.

EXCEPTIONAL DAMAGE

When a 6 is rolled to score damage – before any modifiers are applied – roll that die again and if a further 6 is rolled the shot scores *exceptional damage*. This means **the shooter** picks which model falls casualty rather than his opponent. This represents the fact that sometime it's the Sarge who gets it, or that a machine gun can jam or be damaged beyond repair.

For example, exceptional damage allows the opposing player to remove a squad's NCO reducing its morale value by –1. Alternatively, the player might choose to remove a model carrying a particular weapon such as the squad's light machine gun or a panzerfaust. If the target is a weapons team, for example a bazooka or medium machine gun team, then exceptional damage indicates that the weapon itself has been damaged or rendered inoperable in some fashion, so remove the weapon and its firer as a casualty.

TROOP QUALITY

You will have noticed that infantry and artillery of better quality are harder to score damage against, whilst those of lower quality are easier to score damage against. This represents the advantage of combat experience, vastly increasing the survivability of veteran, highly trained and experienced soldiers compared to green recruits.

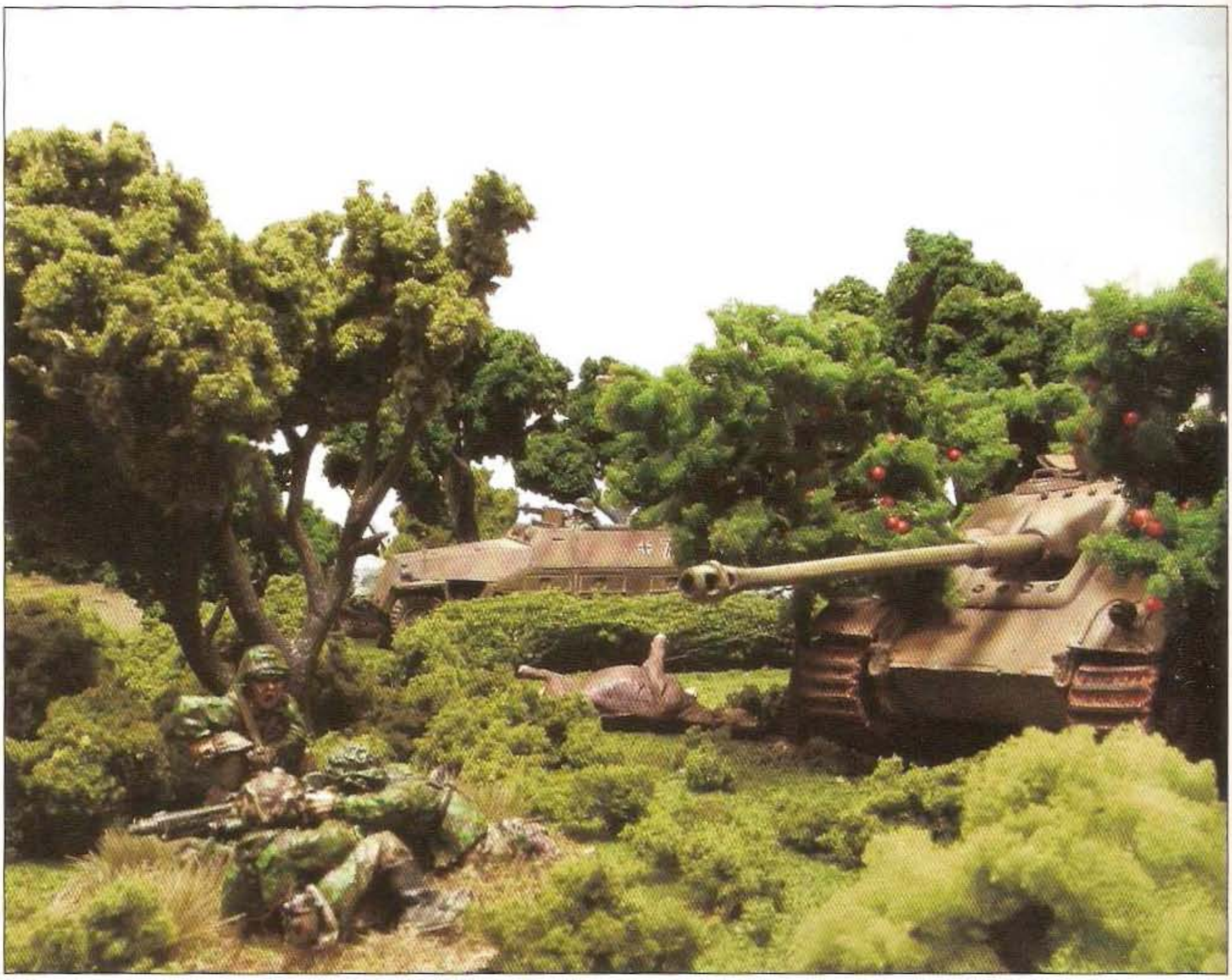
The Russian T-34 was made in greater numbers than any other tank in World War II and continued to serve in the forces of the USSR and her Allies for many years after the war.

TARGET CHECKS MORALE

If a target loses **half or more** of its men from the fire of one enemy unit, then the player makes an immediate morale check. This is just the same as an order test, and all modifiers that apply to an order test also apply to a morale check. If the unit passes the check, then there is no effect and it continues to fight on as normal.

If the morale check is failed, the unit's nerve has broken and the troops run for their lives, scatter, or surrender to the enemy. In any case, the unit is removed from the game and counts as destroyed, just as if it had been completely wiped out by enemy fire.

Example (continued): As the squad had only six models remaining when shot at it, two casualties are not enough to force a morale check. Had the shooters managed to cause three casualties, a morale check would have been required, and if failed would have resulted in the unit being destroyed. Now, with only four men remaining, it will be easier to force a morale check the next time the unit is shot at.



If you go down to the woods today...

This section describes rules for the most common and important combat weapons of World War II including infantry small arms, support weapons and artillery.

Each of the weapons used in Bolt Action has a profile that includes all the gaming information needed to play. For example, this is the profile for the most common weapon of the war, and the one that gives the name to the game itself, the bolt-action rifle:

Type	Range	Shots	Pen	Special
Rifle	24"	1	n/a	–

Type – this is a generic description that includes many weapons with the same or similar characteristics. In the case of the rifle, this includes all bolt-action rifles, carbines and semi-automatic or self-loading rifles such as the American M1 Garand.

Range – this is the maximum range in inches at which the weapon can be fired. This is not the maximum theoretical range of the weapon (which would be much longer in many cases) but rather an effective combat range reflecting practical ranges in battle situations.

Shots – this is the number of dice rolled when the weapon is fired. This does not directly represent the number of rounds a weapon can shoot in any fixed time. It is a measure of comparative effectiveness in our game, taking into account reloading times, ammunition conservation, and the need to constantly correct a weapon's aim to keep it on target.

Pen – short for **penetration bonus**, this is a measure of how much punch the weapon's shots deliver, its stopping power and ability to penetrate armour. This number is added to the roll to damage against all targets. If the weapon has the letters HE in this column rather than a number, this means it always fires high-explosive (HE) rounds. HE rounds have a penetration bonus based on the size of shell (see p53).

Special – here we include any special rule that modifies the way a weapon works. A list of common special rules can be found after the weapons chart.

TOP SECRET

HITLER'S BUZZSAW

Before the war the Germans developed a general-purpose machine gun that could perform in the support role but which was also light enough to serve as a squad based weapon – this was the MG34. Although broadly successful, in 1942 a successor was designed that was intended to be cheaper to make and more reliable in service. This was the formidable MG42, a weapon that was so good variants of the same design continue to serve in many armies to this day. Being a general-purpose machine gun the MG 42 performed the same role within an infantry squad as the American Browning Automatic Rifle, British Bren and Soviet Degtyaryov DP, as well as the role of support machine guns such as the British Vickers, the American Browning .30 and Russian 'Maxim' PM. The MG42 had a phenomenal rate of fire – up to 1,500 shots per minute – producing a distinctive and terrifying noise that inspired the nickname 'Hitler's Buzzsaw'. This high rate of fire had its drawbacks though. Vast quantities of ammunition could be consumed very quickly, and in practice firing was limited to short bursts to conserve bullets. Also, barrels wore out quickly because of the high temperatures generated, but the weapon was designed in such a way that the barrel could be removed and replaced quickly in action. The MG42 was one of the best infantry weapons of the war, easily enabling German infantry units to pour out greater and more deadly firepower than their enemies.

The MG42 had by far the greatest rate of fire of any infantry support machine gun of the war.

WEAPONS CHART

WEAPONS CHART

SMALL-ARMS

TYPE	RANGE	SHOTS	PEN	SPECIAL RULES
Rifle	24"	1	n/a	-
Pistol	6"	1	n/a	Assault
Submachine Gun (SMG)	12"	2	n/a	Assault
Automatic rifle	30"	2	n/a	-
Assault rifle	24"	2	n/a	Assault
Light Machine Gun (LMG)	30"	3	n/a	Team
Medium Machine Gun (MMG)	36"	4	n/a	Team, Fixed

HEAVY WEAPONS

TYPE	RANGE	SHOTS	PEN	SPECIAL RULES
Heavy Machine Gun (HMG)	36"	3	+1	Team, Fixed
Light automatic cannon	48"	2	+2	Team, Fixed, HE (D2)
Medium automatic cannon	72"	2	+3	Team, Fixed, HE (D2)
Anti-tank rifle	36"	1	+2	Team
PIAT	12"	1	+5	Team, Shaped Charge
Bazooka	24"	1	+5	Team, Shaped Charge
Panzerschreck	24"	1	+6	Team, Shaped Charge
Panzerfaust	12"	1	+6	One-shot, Shaped Charge
Light AT gun	48"	1	+4	Team, Fixed, HE (D2)
Medium AT gun	60"	1	+5	Team, Fixed, HE (D2)
Heavy AT gun	72"	1	+6	Team, Fixed, HE (D3)
Super-heavy AT gun	84"	1	+7	Team, Fixed, HE (D3)
Flamethrower (infantry)	6"	D6	+2	Team, Flamethrower
Flamethrower (vehicle)	18"	2D6	+3	Flamethrower
Light mortar	12"-24"	1	HE	Team, Indirect fire, HE (D3)
Medium mortar	18"-60"	1	HE	Team, Fixed, Indirect fire, HE (D6)
Heavy mortar	18"-72"	1	HE	Team, Fixed, Indirect fire, HE (2D6)
Light howitzer	(0/24")-48"	1	HE	Team, Fixed, Howitzer, HE (D6)
Medium howitzer	(0/24")-60"	1	HE	Team, Fixed, Howitzer, HE (2D6)
Heavy howitzer	(0/24")-72"	1	HE	Team, Fixed, Howitzer, HE (3D6)

The 5th Wiltshires' attack on Hill 112, by Peter Dennis © Osprey Publishing Ltd. Taken from Campaign 143: Caen 1944.

TYPES OF WEAPON

The Weapons Chart lists the different types of weapon as they are defined in the Bolt Action game. Thus we treat all rifles as the same, all pistols as the same, all light machine guns as the same, and so on. Where we wish to make a distinction between particular kinds of machine gun, or particular kinds of weapon of any type, we will introduce a special rule in the Army List. For example, the German MG42 machine gun is given more shots to represent its higher rate of fire compared to other weapons of this type.

Note that we do not include hand grenades amongst our list of weapons – this is because grenades are thrown only at very short ranges and are therefore included as part of the rules for close quarter fighting. It is assumed that all infantry carry the usual fragmentation grenades, and can be given anti-tank grenades in some cases.

Most of the categories will be obvious enough and require no explanation. Hopefully everyone knows what is meant by a rifle, a submachine gun, or a pistol. Other categories are very specific and refer to a particular weapon such as a panzerfaust or a PIAT, and therefore require no further explanation of how they are arrived at. However, most heavy weapons such as anti-tank guns, mortars and howitzers are rated as light, medium, heavy and so forth. A little explanation is required of how these categories have been determined.

Rifles. The rifle is the standard weapon of the World War II infantryman. Rifles can be either magazine-fed, bolt-action rifles such as the British Lee-Enfield .303 or self-loading rifles such as the American M1 Garand, German Gewehr 43, and Russian Tokarev SVT-40.

Pistols. Pistols are the standard side arm carried by officers as well as by vehicle crews and combatants otherwise unable to carry a rifle. These can be automatic weapons such as the American Colt and German Walther P38 or revolvers such as the British Webley.

Submachine Guns (SMG). Submachine guns were often carried by vehicle crews and junior officers, or by specially equipped units such as Commandos. Submachine guns fired pistol ammunition and therefore had a very limited range. The Russians equipped whole formations with these weapons, as they were very effective in the hands of inexperienced troops. Submachine guns were especially favoured for fighting in heavily built-up areas where a rifle's greater range was of little consequence. Typical examples include the American Thompson, British Sten, German MP40 Schmeisser, and Russian PPD-40 and PPSh-41.

Automatic Rifle. This category is intended to cover the one-man Browning Automatic Rifle (BAR) that equipped American infantry squads in lieu of a two-man light machine gun. It was a weapon of World War I vintage originally designed to allow advancing infantry to give covering fire as they approached the enemy.

Assault Rifle. This category covers the most advanced infantry arm of World War II – a weapon that could shoot with the power and accuracy of a rifle and the rate of fire of a submachine gun. Assault rifles only appeared in the hands of specialist troops until the end of the war. The German StG44 is the best-known example of an assault rifle from the period.

Light Machine Gun (LMG). This category covers all mobile, squad-based machine guns usually with a crew of two such as the British Bren and German MG42. These weapons shot rifle calibre bullets and provided infantry squads with their main source of firepower.

Medium Machine Gun (MMG). Medium machine guns covers rifle calibre machine guns on a heavy, tripod or similar fixed mount. These can include some weapons that are otherwise categorised as LMGs on bigger, more stable mounts, and usually including more crew to carry the extra ammunition and equipment. For example, the German MG42 was used in the LMG role on a light bipod mount, and in the MMG role on a tripod mount. However, in the British army the LMG role was fulfilled by the Bren whilst the MMG role was taken by the Vickers, which was a heavier, water-cooled, maxim-style machine gun with a weighty brass tripod.

Heavy Machine Gun (HMG). Heavy machine guns are basically large-calibre machine guns such as the American Browning .50 cal. These weapons fire big, powerful bullets and are usually considered too heavy to be carried by infantry. They are often found mounted onto vehicles for defence against aircraft.

Automatic Cannons. Automatic cannons are rapid firing weapons that are typically found on very light tanks and armoured cars. They are also used extensively as anti-aircraft guns and examples include Bofors guns and the German Flak 38. These guns are divided into two categories in our game: light and heavy. Generally speaking, light automatic cannons are those with a calibre of 20mm or 25mm whilst heavy automatic cannons have a calibre of 37mm or 40mm.

Infantry Anti-tank Weapons. The anti-tank rifle, such as the British Boys, was in widespread use at the outbreak of World War II but proved largely ineffective against modern armoured vehicles, being insufficiently powerful to penetrate more than about 20mm of armour. It remained useful against armoured cars and lighter vehicles, as well as against emplaced infantry. The Russians persevered with a heavier calibre anti-tank rifle, producing the 14.5mm calibre PTRD-41 capable of piercing up to 40mm of armour at very short ranges. The remaining weapons of this category were designed to fire a shaped-charge or HEAT round (High Explosive Anti Tank). This was a development of the hand held anti-tank grenade by the American military, the original and best-known example being the bazooka. The Germans copied the design and produced their own version, which they called panzerschreck – or 'tank terror'. The British developed their own design based on a spigot mortar; this was the Projector Infantry Anti Tank or PIAT. Whilst all of these weapons were similar in concept they varied sufficiently in effectiveness for us to give them distinct ranges and penetration values in our game. A further development was the one-shot disposable panzerfaust – 'tank fist' – that was issued to German troops in large numbers towards the end of the war. Captured panzerfaust were used by the Allies and especially by the Russians.

British 2pdr anti-tank gun

Anti-tank Guns (AT guns). All anti-tank guns are designed to fire a projectile with as high a velocity as possible over a flat trajectory – enabling them to strike enemy tanks over long distances. The effectiveness of an AT gun depends upon its calibre, the velocity of the weapon, and the type of shell used. AT guns with longer barrels are more effective because they fire shells at a higher velocity. Armour penetration is closely related to the kinetic energy delivered by a shell: this being equal to the mass of the shot (weight of shell) multiplied by the velocity squared. In addition, as the war progressed shells were developed that were more effective at penetrating armour either because of their shape, or because they incorporated a dense core – usually tungsten. For our purposes we rate AT guns as light, medium, heavy, or super-heavy depending upon their overall effectiveness. Although this is closely related to calibre, some very high velocity weapons punch 'above their weight', such as the British 17pdr (calibre 76.2mm) and German 75mm L/70 as found in the Panther tank. The Army Lists explain which weapons fit into which categories, but as a general guide, light AT guns are those up to 50mm calibre, medium AT guns are those up to 75mm including weapons of 75mm of relatively low velocity, heavy AT guns are those of 75mm or greater including weapons of 75mm of relatively high velocity. Super-heavy AT guns are those of 75mm or greater with extremely high velocity or effectiveness, for example the German 88mm. Note that some weapons will fall into a higher or lower category because they were really less or more effective than their calibre alone suggests – and these are indicated in the Army Lists.

Flamethrowers. Flamethrowers were used by specialist troops and were primarily employed for clearing fixed defences such as blockhouses and bunkers. They were much feared by ordinary soldiers – so much so that captured flamethrower operators were likely to find themselves shot out of hand. We distinguish between man-pack flamethrowers and larger,

Fallschirmjäger fire support

vehicle-mounted weapons such as that of the Churchill Crocodile flamethrower tank.

Mortars. Mortars served as close support where artillery was either not available or was insufficiently mobile – mortar platoons formed part of infantry battalions, providing short-ranged artillery support exactly where it was needed. All mortars lob an explosive shell above and onto their target, with larger and more powerful mortars having a longer range and firing a correspondingly heavier shell. We distinguish between light, medium and heavy weapons. Light mortars are very small weapons with a short maximum range – usually about 500 yards. They are used right at the front to either shell enemies hiding in cover, to lay smoke or to fire illuminating flares at night. Typical light mortars include the British 2", German 50mm and American 60mm mortars. Medium mortars are larger support weapons and typically have a calibre greater than 60mm – often 80mm. They have a much longer range – over 3,000 yards – and a heavier shell, but they are much harder to move about and tend to operate as light artillery pieces at longer range. Heavy mortars are those of even larger calibre – these are really long-range support weapons and not likely to find their way to the front unless overrun by advancing enemy. The German 120mm mortar was a weapon of this type – itself a copy of the Russian 120mm mortar – a weapon with a range of over 6,000 yards.

US Airborne 57mm anti-tank gun

Howitzers. We have used the term howitzers to cover the kind of combined gun-howitzer artillery pieces that were the usual field artillery design during World War II. These guns could fire over open sights at an enemy or they could lob shells at distant targets with a high trajectory. There were many different designs and sizes of gun – and we shall not concern ourselves with the very largest weapons used for coastal defence and long-range bombardment. For our purposes it is sufficient to make three distinctions. Light howitzers are mobile field guns with a calibre below 100mm. This includes the British 25pdr, the American 75mm pack howitzer, and various German 75mm field guns including those captured in some quantity from the French. Medium howitzers cover weapons under 150mm, such as the American 105mm gun, the British 4.5 inch, and Russian 122mm howitzer. Heavy artillery covers weapons of 150mm calibre and greater such as the German 150mm, Russian 152mm howitzer, and American 155mm Long Tom.

WEAPON SPECIAL RULES

The following special rules are used to represent the different types of weapons, or weapons mounted for specialist use, as indicated on the weapons chart.

ASSAULT

This weapon suffers no penalty 'to hit' when moving and shooting. In addition, infantry armed with an assault weapon can make two attacks in close quarter fighting against other infantry and artillery units – see p55. Note being armed in this way does not confer two attacks against vehicles at close quarters.

ONE-SHOT

This is a disposable weapon that can be fired only once per game. For example, the panzerfaust is a rocket-propelled anti-tank grenade commonly used by late war German troops. Once fired replace the model with another model that does not carry the disposable weapon.

FIXED

This weapon is too heavy and cumbersome to be moved easily, it probably has a substantial mount and the chances are that its ammunition is equally hard to lug about. These weapons are ideally fired from a stationary position once set up, and if moved about usually take a while to get ready for action.

Fixed weapons cannot be fired when a unit is given an *advance* order. Teams armed with fixed weapons that make an advance action can only move – they cannot shoot as well.

Fixed weapons can only target an enemy unit that lies at least partially within their front arc (i.e. within an angle of 45° to each side of their barrel as shown on the diagram opposite). Targets outside of this arc cannot be shot at.

TEAM

The special rule *team* or *team weapon* indicates that the weapon requires two or more men to shoot at full effect. Most team weapons form units on their own – for example a medium machine gun team, a bazooka team, or an artillery piece and its crew.

The only team weapon carried by the typical infantry squad is the light machine gun. If a light machine gun is included in an infantry squad then any of the other infantrymen in the squad can serve as its second crewman, for example, a Bren gun team of firer and loader.

Aside from light machine guns, team weapon form individual units, for example an anti-tank gun and crew, a mortar and crew, or a heavy machine gun and crew. A team can consist of two, three or more members comprising one man to fire the weapon and a number of loaders or other crewmen to help operate it, move it about, carry ammunition or act as lookouts. All the members of the unit are fully occupied whether carrying equipment, serving the weapon, or keeping watch. Note that although in reality crewmen often carried small arms, and many crew models will undoubtedly do so, in the game crews of team-based units never fire these weapons and are therefore not allocated personal armament in the army lists.

A team weapon shoots at full effectiveness so long as there are at least two men to serve it. A minimum of two crew is always needed to fire at full effect.

If only one man remains to serve a team weapon then the weapon can still be fired but suffers a –1 'to hit' penalty. A weapon team unit reduced to just one man also suffers a –1 penalty to its morale value (in the same way as if an infantry squad had lost its NCO).

In the case of a non-artillery team weapon unit – such as a mortar, bazooka, and so on – when the model carrying the team weapon is destroyed the entire team is considered to be out of action. All remaining crew models are removed as casualties and the unit is destroyed. This might seem harsh but it avoids worrying about ineffective odd men and is only fair in terms of the removal of order dice and awarding of victory points as described later. Perhaps these odd crewmen have panicked and fled or else they have been caught in a catastrophic ammunition explosion and killed – either way we abandon them to their fate.

SHAPED CHARGE

The warhead of these rocket-propelled grenades can take out any tank it strikes head-on. These are very powerful weapons but rather inaccurate, so they suffer from an additional –1 penalty on all rolls to hit. On the other hand, as the shells don't rely on velocity to penetrate armour, they never suffer the –1 penetration modifier for firing at long range.

FLAMETHROWER

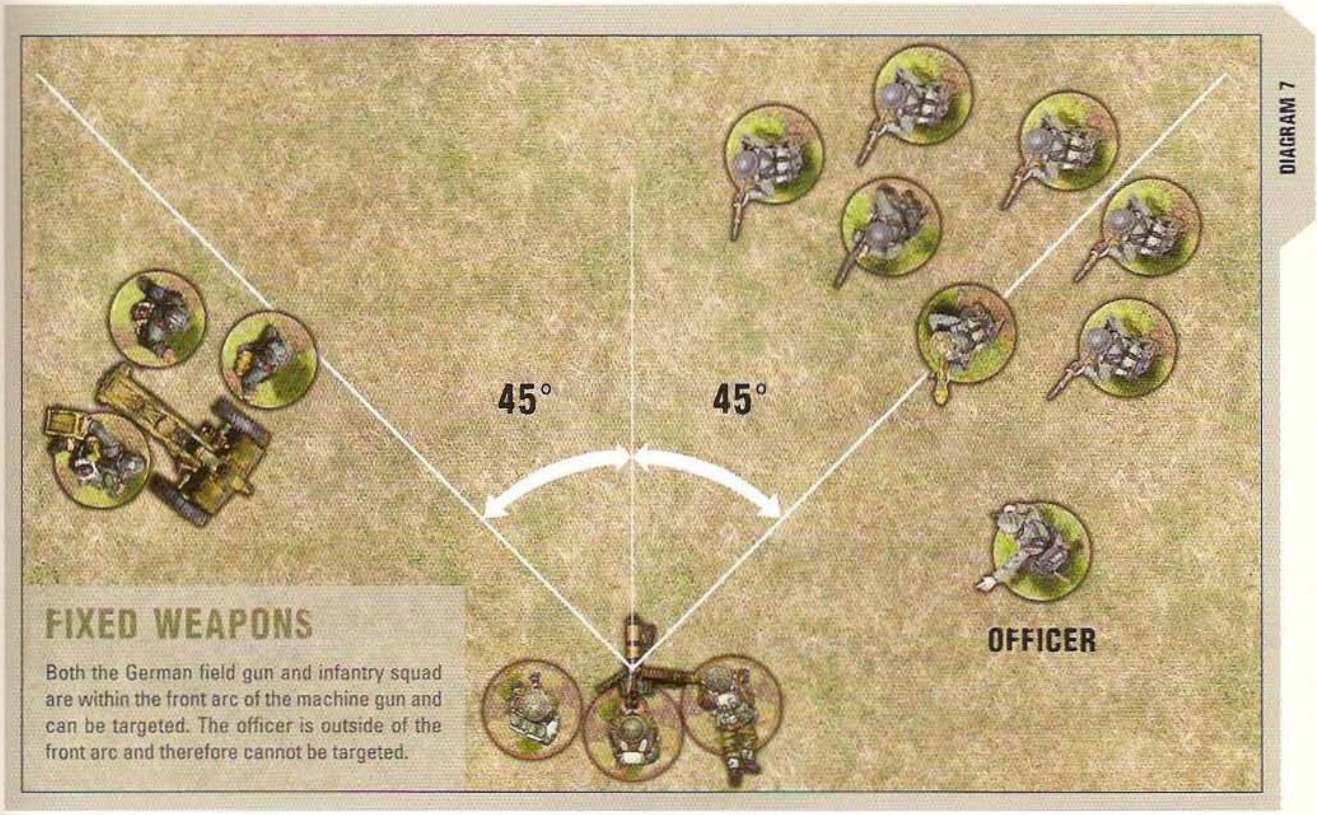
A flamethrower hits automatically – no roll is made to hit the target and no modifiers are applied. This makes flamethrowers especially effective against troops in bunkers or behind cover. It also means that a flamethrower team reduced to one man can continue to fire at full effect, although he still suffers the –1 morale penalty as noted under *Team*.

When shooting with a flamethrower the number of hits is determined randomly by rolling a D6 for man-pack flamethrowers and 2D6 for flamethrowers mounted in vehicles. Roll for damage in the usual manner.

Although flames cannot literally burn through armour, the penetration modifiers for shooting at armoured vehicles with heavy weapons **do** apply as described in the Vehicles section of the rules (p79). This represents the vulnerability of rear-mounted engines to fire and the tendency of burning liquid to seep through hatches and other openings.

The *gun shield* rule (p77) does not apply when shooting at artillery targets with a flamethrower. The *extra protection* rule (p103) does not apply when shooting at targets inside buildings with a flamethrower. In both cases neither building nor gun shield offers any additional protection against a flamethrower.

An infantry or artillery unit hit by a flamethrower takes 1 pin marker because it has been hit, and a further D3 pin markers to account for the unbridled terror unleashed upon it. As a flamethrower hits automatically, this means it will always inflict D3+1 pin markers on an infantry or artillery target. Note that vehicles take just the one pin marker for being hit.



FIXED WEAPONS

Both the German field gun and infantry squad are within the front arc of the machine gun and can be targeted. The officer is outside of the front arc and therefore cannot be targeted.

The target of a flamethrower must check its morale once firing has been worked out and pin markers allocated as described above. Note that a morale check is required regardless of the number of casualties caused and even if no damage has been suffered at all. A unit failing this check is destroyed immediately – its morale completely shattered. Vehicles failing their morale in this way are abandoned and considered destroyed.

After shooting with an infantry man-pack flamethrower roll a D6. On a result of 1 or 2 the flamethrower has run out of fuel and is now useless. If this happens the entire flamethrower team is removed as if it had fallen casualty. Although this might seem harsh, it does reflect the extreme risks run by troops carrying flamethrowers and introduces a level of unpredictability that balances the weapon's effectiveness. After shooting with a vehicle-mounted flamethrower roll a D6. On a result of 1 the flamethrower has run out of fuel and is now useless. This does not otherwise affect the vehicle.

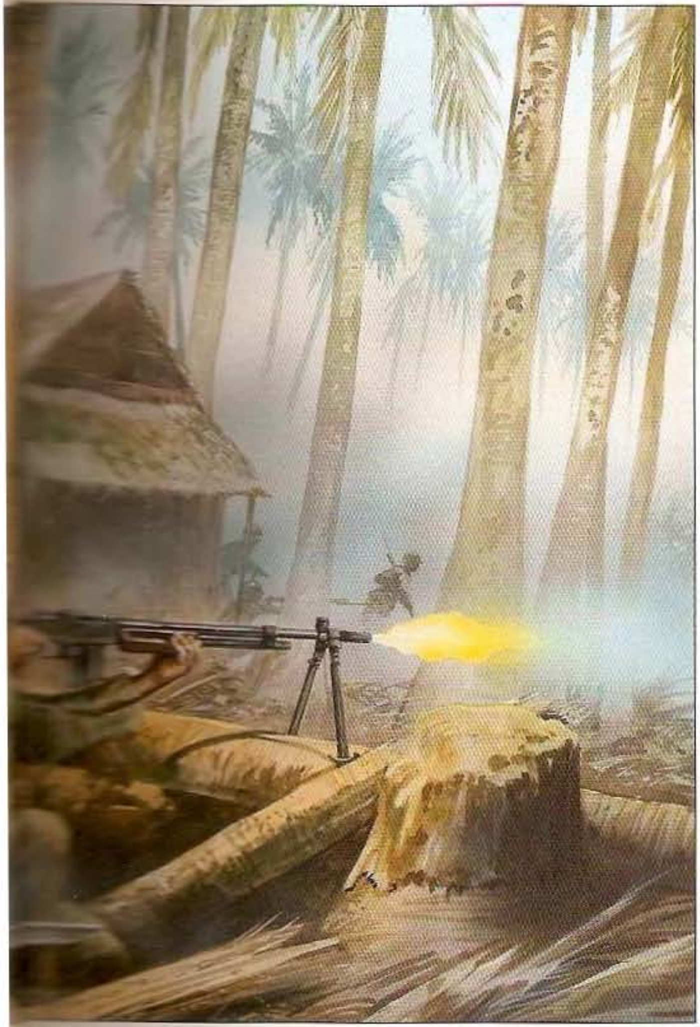
When rolling on the damage effects chart against a vehicle equipped with flamethrowers, add an extra +1 to the roll to represent the increased risk from carrying around so much volatile fuel for the flamethrower. See the rules for vehicles p79.

US Marines in the Pacific, by Peter Dennis © Osprey Publishing Ltd. Taken from Weapon 1: The Thompson Submachine Gun.

HE (HIGH EXPLOSIVE)

Most weapons with the HE rule can choose to fire either an anti-tank round using the penetration value given, or a high-explosive (HE) round. Some have no separate value for penetration and can only fire an HE round and this is shown as HE in the Pen column. To fire an HE round the player declares that he is doing so and rolls to hit as normal. If a hit is scored on the target, that hit is multiplied into a number of hits equal to a die or dice roll as shown in brackets on the weapons chart. For example, HE D6 will result in from 1 to 6 hits, HE 2D6 gives 2-12 hits, and so on.

A target shot at by HE can react by taking an immediate down action in the usual manner. Once the target has gone down the number of HE hits caused is **halved rounding down**. This represents men who have 'hit the dirt' and who might be lucky enough to avoid the blast and flying shrapnel.



Hits by weapons with an HE value greater than D3 can result in extra pin markers on the target. This represents the terrifying effect of artillery shells exploding on and near the unit. The total number of pin markers is generated randomly by rolling a D2, D3 or D6 depending on the HE value of the shooter as shown on the chart below. For example, if hit by a shell with an HE value of D6 the target takes D2 pin markers – i.e. roll a dice with scores of 1, 2 or 3 = 1 and scores of 4, 5 or 6 = 2.

The penetration value of HE shells also varies with the HE values, with larger and more powerful shells having higher values. This is also shown on the chart below. HE shells don't rely on the kinetic energy of the shell itself to penetrate a target's armour, so they don't suffer the –1 penetration penalty when firing at long range.

HE	PIN	PEN
D2	1	+1
D3	1	+1
D6	D2	+2
2D6	D3	+3
3D6	D6	+4

When a unit capable of shooting HE or anti-tank shots is given an *ambush* order the player must specify the kind of round loaded. If this is forgotten then the default position is that anti-tank guns will load anti-tank rounds, whilst other guns will load HE rounds. The unit cannot change from one type of round to another until a further order is issued – though this could be another ambush order if desired.

INDIRECT FIRE

The *indirect fire* special rule refers to weapons that shoot 'indirectly', which is to say they lob a shot high in the air to land on top of the target, for example a mortar rather than a rifle that shoots 'directly' at its target. These indirect fire weapons cannot be fired at targets within their minimum range (see weapon's profile). If a target lies within this minimum range the shot misses automatically and is ignored.

When using indirect fire a 6 is required to hit regardless of all modifiers. In the following turn, if the shooter fires at the same target, and if neither the shooter nor the target has moved from their position, a hit is scored on a 5+. This represents the shooter adjusting his aim by observing where shots are falling. If the shooter continues to fire, and neither unit moves, a hit is scored on a 4+ in the next turn, then 3+ and finally 2+ in all subsequent turns. If a hit is scored in any turn, the shooter is zeroed in on the target and as long as neither unit moves, all further shots hit on 2+.

The crew of an indirect firing weapon must still be able to see their target to shoot unless a spotter is employed – see the Spotter rule below. However, the crew can direct their fire against targets even if friends are in the way, as shots pass far over the heads of intervening friendly troops because of the high trajectory.

When fired against vehicles, hits from indirect fire weapons always strike the vulnerable top armour, counting the +1 penetration modifier to damage regardless of the actual position of the firer. If an open-topped armoured vehicle is hit by indirect fire add the +1 penetration modifier to the roll to damage, and also add +1 to the die roll on the *Damage Results* table (see p87).

US AND BRITISH 75MM TANK GUNS

The US 75mm M2 and M3 tank guns – as fitted to the M3 and M4 medium tanks – were general purpose weapons not designed as specialised anti-tank guns unlike the German 75mm Kwk 40 gun that equipped the Panzer IV. Although anti-tank performance was poor they had a good HE shell, making tanks equipped with these guns very effective against infantry targets.

For this reason we rate the US 75mm gun as a medium anti-tank gun but with the HE capabilities of a light howitzer causing D6 hits rather than D2. Although a different weapon, the British 75mm gun was similar in performance and was adapted to fire US ammunition – so we treat both guns as the same.

SPOTTERS

Some indirect weapons teams can be provided with a spotter as indicated in the Army Lists section. A spotter is always a single model. The spotter is part of the mortar or artillery team but is always treated separately and is not one of the crew. He does not have to be placed with the weapon crew – his role is to lie in some forward position from where he can relay target coordinates to the crew, directing their fire using either a radio or fixed line. As the spotter forms part of the same unit as the weapon he is directing, no separate order die is provided for him. During a turn either the weapon crew can be given an order or the spotter can be given an order – but never both.

If an indirect fire weapon has a spotter, then the crew are assumed to be able to see whatever the spotter can see. This can potentially enable a mortar or artillery piece to shoot at targets that lie on the other side of a hill, woods or in some other position that is invisible to the crew itself.

The spotter and the crew are treated entirely separately in other respects – as if they were two units – and the spotter is not taken into account when it comes to determining whether the weapons team or artillery piece is destroyed. Should his associated weapons team or artillery piece be destroyed then the spotter is also removed as a casualty – he abandons his post and makes his way back to his own lines without taking any further part in the battle. If the spotter is destroyed this makes no difference to the weapon team or artillery crew, other than that their aim can no longer be guided by the spotter.

Weapons cannot be fired indirect when given an *ambush* order. Indirect fire is not accurate enough to use against rapidly moving or emerging targets.

Howitzers and mortars can also fire smoke shells to lay a smoke screen – see p78 for rules covering this.

HOWITZER

This weapon can either shoot directly at a target drawing its line of fire 'over open sights' in the normal way, or it can shoot 'indirect fire' as described above. When using indirect fire a howitzer has a minimum range of 24". When firing over open sights it has no minimum range. This is shown on the charts as a variable minimum range of 0–24".

MULTIPLE LAUNCHER

This rule describes multi-barrelled rocket firing weapons such as the German Nebelwefer and Wurfrahmen, the Russian Katyusha and US Calliope. A multiple launcher counts as a heavy mortar, but its chance of hitting never gets any better than a 6. However, because of the extensive blast area all units (friend or foe) within 6" of the nominated target and not entirely within the weapon's minimum range can be hit. Roll a die to hit for the target plus every unit within 6" of it. Note that units that lie beyond the weapon's maximum range can also be hit in this way – although the target unit itself must be within range.

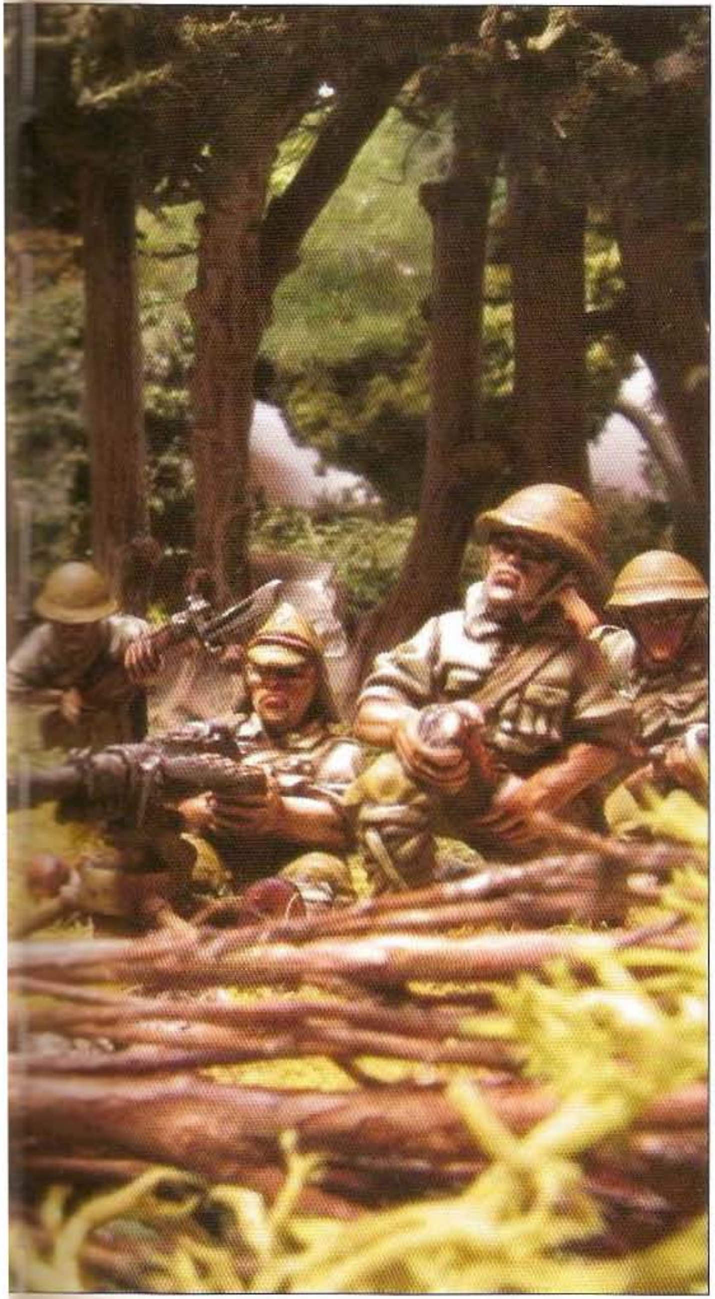
The proliferation of automatic weaponry during 20th century warfare meant that charging across open ground to engage the enemy at close quarters became a lot less effective and much more risky. However, it often remained the only way to dislodge determined infantry from strong defensive positions.

CLOSE QUARTERS PROCEDURE

If a player wishes a unit to engage an enemy at close quarters, it must be given a run order and the player must also declare the unit is making an **assault**.

Banzai! Japanese soldiers hurl themselves at the enemy

When a unit makes an assault it moves into touch with the target enemy unit, and the two will then fight at close quarters. This is the only time when opposing units are allowed to deliberately move into touch, as they must normally keep more than 1" away from each other. Fighting is resolved in the following sequence.



1. Declare target
2. Target reacts
3. Measure move distance and move assaulting models
4. Fight first round of close quarters
   a. Attackers roll to damage
   b. Defenders take casualties
   c. Defenders roll to damage
   d. Attackers take casualties
   e. Loser surrenders and is destroyed
5. Resolve draws – further rounds of close quarters
6. Winner regroups

DECLARE TARGET

The player declares that the unit is making an **assault** and indicates the enemy unit that will be attacked. The unit making the assault must be able to see the target enemy unit, or must be able to see the building it occupies if the target is inside a building. Note that just as a unit must select one enemy to shoot at, a unit must select one enemy to assault.

TARGET REACTS

If the target unit has not already taken an action that turn, and if the assaulting unit is more than 6" distant, the target unit can react by opening fire against the assaulters. The opposing player takes an order die from the dice cup and instructs his unit to *fire*. Sometimes this reaction fire may be enough to wipe the assaulters out before they even reach their target.

If the unit being assaulted has one or more pin markers it is still allowed to react by opening fire. The order is automatically given; no test is required to see if the order is obeyed. Note that because no test is taken the unit does not lose a pin marker for 'passing' an order test. Each pin marker on the unit will reduce its chance of hitting in the usual way.

SURPRISE CHARGE

If the assaulting unit is 6" or less from its target when the assault is declared then the target cannot react. The enemy is just too close and there is not enough time to bring weapons to bear.

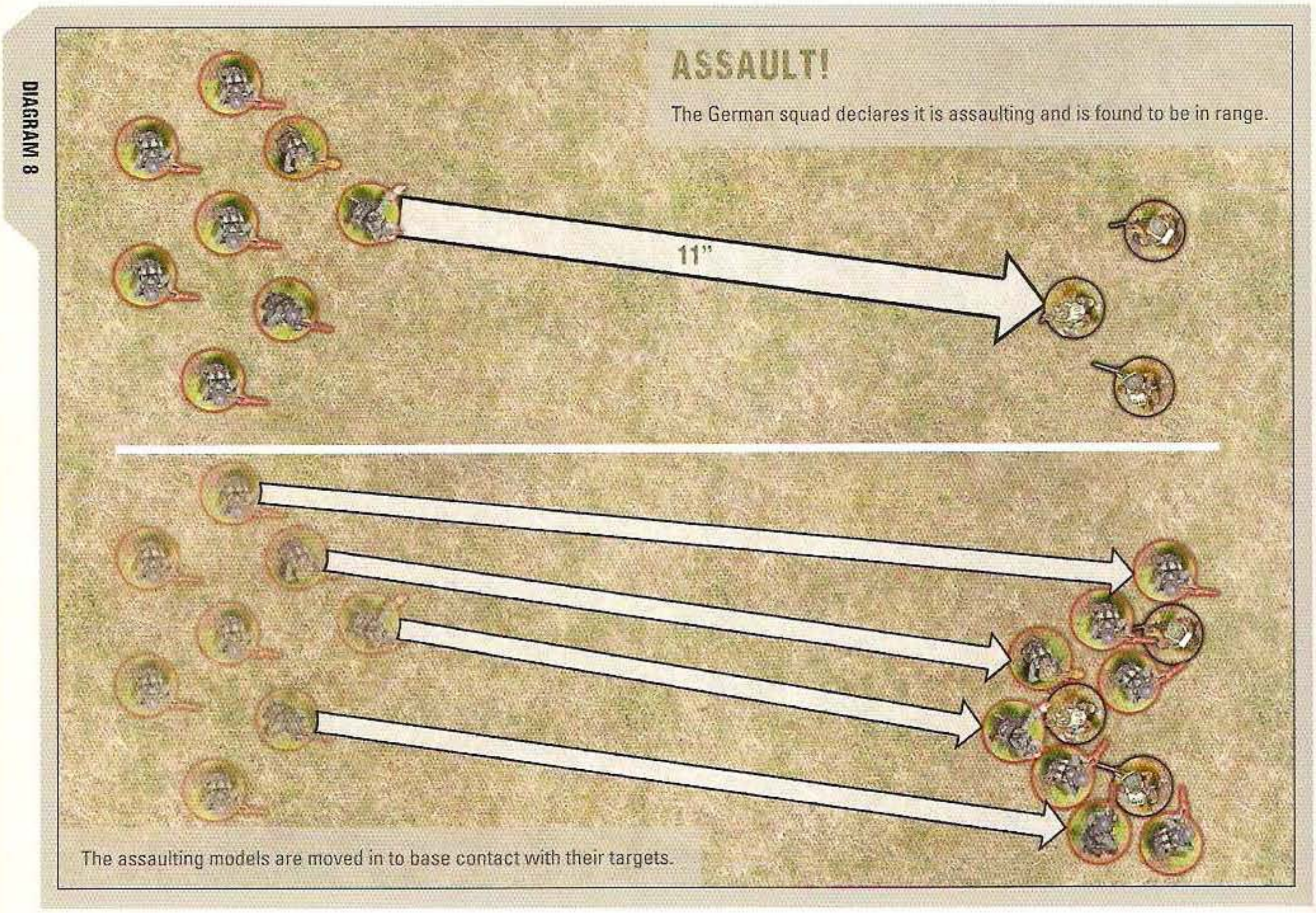


DIAGRAM 8
ASSAULT!
The German squad declares it is assaulting and is found to be in range.
11"
The assaulting models are moved in to base contact with their targets.

OUTFLANKED

Any weapon that has a fixed arc of fire can only respond with reaction fire if the assaulting unit is within its fire arc at the start of the assault move.

MEASURE RANGE AND MOVE

Measure the distance between the two units. Bear in mind that assaulting troops might have to move round terrain or models that block their most direct path to the enemy.

Troops making an assault are not allowed to cross obstacles as they move, except that they can cross an obstacle they are sheltering behind at the start of the assault move; for example, if they are behind a wall or hedgerow. Assaulting troops are also allowed to assault an enemy who is sheltering behind an obstacle, in which case the assaulting unit is moved up to the obstacle and the opposing units fight across it. In both these cases an assault is permitted and a *run* order is allowed, even though a run action is not normally possible when crossing obstacles.

If the distance is greater than the maximum run move of the assaulting troops (12") then the assault has failed to contact. Move the assaulting unit as far towards the target as it can get, remembering to leave a gap of more than 1" between then as usual.

If the distance is within the maximum run move of the assaulting troops (12") then the assault is successful. Move the models in the assaulting unit into contact with the models in the target unit. Arrange the combatants so that as many models from both units touch as possible, distributing the assaulters one on one as far as possible. Once the assaulting unit has moved, any models in the target unit that are not already in contact with an enemy are moved into touch. Models unable to touch enemy for whatever reason are positioned as close as possible and count as fighting in the combat even though they are not in contact.

Note that individual models can potentially move further than 12" to reach an enemy during an assault. So long as

Keep the red flag flying – the Russian war machine storms forward

opposing units are within the permitted distance measuring closest to closest in the normal way, the assault goes ahead.

THE 1" GAP RULE AND ASSAULTS

When an infantry unit assaults an enemy unit the usual 1" gap rule that prevents enemies moving within 1" does not apply. Models are allowed to move within 1" of enemy as they assault, but are not allowed to pass within 1" of one enemy unit to assault a different enemy unit that is further away.

ALL OR NOTHING!

Once an assault begins troops from both sides fight for their lives, holding nothing back, even wounded troopers doing what they can to overcome the enemy. After moving into contact as described above, both units therefore immediately remove **all** of their pin markers, as adrenalin kicks in and the savage struggle for survival begins.

FIGHT FIRST ROUND OF CLOSE QUARTERS

To explain things clearly we will refer to the unit making the assault as the **attackers** and the target unit as the **defenders**. The fighting is resolved as follows. Note that we are only concerned with attacks against other infantry and artillery crews for the moment. The rules for close quarter fighting against vehicles are a little different and are explained on page 88.

ATTACKERS ROLL TO DAMAGE

The attackers make one assault attack per man (keep in mind

that some weapons and special rules confer additional attacks). As there is no taking cover from a grenade blast, bayonet thrust or point-blank shot, all close quarter attacks against other infantry or artillery crews hit **automatically**. Roll to inflict damage in the same way as for shooting, including inflicting exceptional damage on rolls of 6 followed by a 6 as explained on p41.

DEFENDERS TAKE CASUALTIES

This is done exactly as for shooting damage. The defender picks which models fall casualty, unless the attackers have scored exceptional damage in exactly the same way as for shooting.

DEFENDERS ROLL TO DAMAGE

Any of the defenders that are still standing after the attacker's onslaught can fight back, hitting their enemies automatically and rolling to damage as before.

ATTACKERS TAKE CASUALTIES

This is just the same as described above for the defenders.

LOSER IS DESTROYED

The side that has caused the most casualties in the round of close quarters combat is the winner. The losing unit is destroyed and removed. Any survivors are assumed to be taken prisoner, running for their lives, hiding or playing possum and are treated as having fallen casualty.

If one side is wiped out to a man during the combat itself, it is the loser and the other side wins regardless of the number of casualties suffered – winners must be alive!

FIGHTING ACROSS AN OBSTACLE

If the defenders are sheltering directly behind an obstacle, such as a wall or hedgerow, then no account is made of the obstacle when measuring the range of the assault move. Simply measure to the target unit as if the obstacle were not there. Assuming the assaulting unit can reach the target, it is moved into contact with the obstacle and the two units fight across it.

When fighting across an obstacle the attackers' normal advantage of going first is cancelled by the defenders' shelter. This means that instead of the attackers fighting first, both sides fight simultaneously. Calculate the combat with all the models from both sides fighting at the same time, and then remove casualties from both sides. To avoid confusion one player will probably have to resolve his fighting first, but regardless of how many enemy fall casualty all the models in the opposing unit will fight including casualties.

RESOLVE DRAWS

If neither side causes more casualties than the other the result is a draw. Immediately fight another round of close quarters combat. Following a drawn combat subsequent fighting is worked out simultaneously as described for fights across obstacles.

If the result is a draw again continue fighting until one side loses or is completely wiped out. Infantry assaults are always decisive resulting in the complete destruction of at least one side.

WINNERS REGROUP

After the losers are removed, the winners are allowed a special 'regroup' move. This special move does not require an order, does not affect any order the unit already has, and does not prevent the unit receiving an order that turn if it has not already done so. This is a special out-of-sequence move that allows victorious units to regain their formation and arrange themselves into a less exposed position. If they have defeated an enemy sheltering behind an obstacle it allows them to move over the obstacle, for example.

A unit making a regroup move rolls a D6 and can move up to that number of inches. Although regrouping units are moving they cannot be shot at by enemy in ambush whilst they do so. This is because the regroup move takes place during the fighting and may include rounding up prisoners, so we consider both sides to be intermingled throughout the fighting including during the regroup move.

Although the actual military organisations of the combatant nations differed in detail, officers, support weapons, radio operators, forward observers, and medical staff generally formed part of a platoon, company or in some cases battalion headquarters (HQ). These HQ units would often be scattered amongst the fighting units where they could be most effective. In the Bolt Action game we shall allow these units to be incorporated as part of a force without worrying unduly about exactly how they fit into the army's structure. Once deployed for battle such units all form part of the same overall command.

HQ UNITS

HQ units are infantry units comprising one or more models. Regardless of its size, each HQ unit adds an order die to your force just like any other unit.

OFFICERS

The most common and possibly the most useful type of HQ units are officers. Officer units consist of an officer model together with a number of other men. Officers are vital when it comes to getting troops moving under fire. To represent this an officer model adds a morale bonus to all friendly units within 6", including to the officer unit itself.

The morale bonus conferred by an officer depends upon his rank – the more senior the officer the higher his bonus. Of course, we accept that linking effectiveness to rank is merely a convenience for purposes of our game. In reality there were many junior officers who were excellent and inspiring leaders and any number of senior officers who were anything but! We have listed the ranks according to British/US usage, and obviously the same bonuses apply to their equivalents in other armies.

OFFICERS MORALE BONUS	
Second Lieutenant	+1
First Lieutenant	+2
Captain	+3
Major	+4

The greatest bonus we need take account of is +4. Therefore the highest rank we have made use of is major, but models of higher-ranking officers can certainly be fielded as part of an army with the same bonus as a major, should players wish. Bear in mind that the highest morale value is always 10, regardless of any bonuses that apply.

A force can include multiple officers of the same or different ranks, but a unit can only benefit from the morale bonus of one officer at a time. This will always be the highest value available.

MEDICS

A medic team consists of a field medic and can include assistants such as orderlies and stretcher-bearers. The field medic is trained to deal rapidly and efficiently with battlefield injuries. These invaluable men can save lives and even put a man straight back into action if his injuries are slight. If an infantry or artillery unit, including the medic team itself, has a medic model within 6" roll a die every time the unit suffers a casualty from small-arms fire. On a 6, that casualty is ignored. Note that a medic cannot be used in cases of exceptional damage (p41), against casualties inflicted by heavy weapons (p45), or against damage suffered in close quarter combat (p55).

FORWARD ARTILLERY OBSERVER

An artillery observer unit consists of an artillery officer model and can include a second model as assistant radio operator. Artillery officers were often attached as liaison at company level to coordinate the fire of artillery batteries behind the front line. This was done in various ways, ranging from the use of radio or field telephones to runners.

Once per game, when the Forward Artillery Observer unit receives a *fire* order, the observer can contact his battery, calling in either an artillery barrage or a smoke barrage. To represent this you will need a token of some kind – a coloured chit for example. Place the token anywhere within sight of the artillery observer. This token represents the aiming point for the artillery battery he has contacted.

Once the token has been placed on the battlefield, at the start of each following turn, before drawing any order dice, roll a D6 and consult the appropriate chart overleaf, either the Artillery Barrage or the Smoke Barrage chart:

ARTILLERY BARRAGE CHART

DIE ROLL	RESULT
1	***Miscalculation*** *Either the observer or the artillery battery has made a terrible mistake in the heat of battle.* The enemy can move the token up to 24" in any direction and then immediately resolve an artillery barrage as described for result 4-6 below.
2 or 3	***Delay*** *The battery is probably busy with another fire mission in another part of the battle.* The player making the barrage can move the token up to 12". Roll again at the beginning of the next turn.
4, 5 or 6	***Fire for effect*** *The area around the aiming point is plastered with heavy shells, blasting the enemy to smithereens.* Roll a die for each unit, friend and enemy, within D6+6"of the aiming point. On a result of 1-5, the unit is not hit directly but takes D3 pin markers from shock and blind terror. On a result of 6 the unit is hit by heavy howitzer – it takes 3D6 hits with a penetration value of 4+ and D6 pin markers (i.e. as for a heavy howitzer hit). Vehicles are hit on their top armour and other units are allowed to take a down action to reduce the damage. Note that the target must declare it is going down before rolling to determine the number of hits suffered.

SMOKE BARRAGE CHART

DIE ROLL	RESULT
1	***Miscalculation*** *Either the observer or the artillery battery has made a terrible mistake in the heat of battle.* The enemy can move the token up to 24" in any direction and then immediately resolve a smoke barrage as described in result 4-6 below.
2 or 3	***Delay*** *The battery is probably busy with another fire mission in another part of the battle.* Nothing happens – leave the token in place. The player making the barrage can move the token up to 12". Roll again at the beginning of the next turn.
4, 5 or 6	***Smoke screen deployed.*** *The area around the aiming point is filled with smoke shells, creating a fluttering smoke screen that billows in the wind and hides the movement of troops.* To represent the smoke some cotton wool, kapok or similar material is required. Make a circle of smoke 6"in radius centred upon the aiming point. Visibility through a smoke screen is reduced to a maximum of 2". If a shooter's line of fire to a target passes through more than 2" of smoke then the shot is blocked and the target is considered impossible to see. If a shooter's line of fire passes through less than 2" of smoke then it can see the target, but suffers a –1 penalty to hit for shooting at a target in 'soft' cover.

Whenever there is smoke on the table roll a die at the start of each turn. On the roll of a 1 all the smoke is dispersed by the wind and is removed. On the roll of a 2 all the smoke on the table drifts D6" in the same randomly determined direction. On a roll of a 3 or more the smoke stays where it is.

FORWARD AIR OBSERVER

An air observer unit consists of an air force liaison officer and can include a second model as assistant radio operator. These airforce officers are attached to ground forces so that air strikes can be effectively coordinated against enemy held positions. In the game they function in a similar way to artillery observers, but instead of calling down an artillery barrage they can summon an air strike.

Once per game, when the Forward Air Observer unit receives a *fire* order, the observer can call in aircraft to attack the enemy. Nominate an enemy unit anywhere within sight of the observer as the target for the air strike.

Once a target has been chosen an aircraft can potentially appear at the beginning of any following turn. At the start of the next turn, before drawing any order dice, roll a D6 and consult the chart opposite.

AIR STRIKE CHART

DIE ROLL	RESULT
1	***Rookie pilot.*** *This inexperienced airman must have trouble with target recognition.* The opposing player can choose one of your units as the new target for the air strike. He places the aircraft marker as described for a Here it comes! result and resolves the attack against your unit.
2 or 3	***The skies are empty.*** *Possibly because of interdiction by enemy fighters, or simply for lack of availability, no plane is sighted.* Nothing happens. If he wishes the player can change the nominated target to any other enemy unit within sight of the Air Observer. Roll again at the beginning of the next turn.
4, 5 or 6	***Here it comes!*** *With a roar, the aircraft begins its attack run.* Follow the sequence overleaf to resolve the air strike.

RANDOMISING DIRECTION

The easiest way to establish a random direction is to use a Warlord order die. Each face of the die has an arrow symbol clearly marked – roll the dice and the arrow will indicate a random direction. Any kind of die that has numbers rather than 'pips' can be used in a similar fashion to give a random direction by drawing a line through the top of the number rolled. Some players use a D10 in a similar way, as its sides are 'arrow shaped' and will therefore always point in a direction when rolled. Another method is to use a D12 (a die with 12 sides) and to nominate a direction as 12 o'clock – this will give you a random direction according to a clock face: 1 o'clock, 2 o'clock, and so on.

THE GREATEST IMPLEMENT OF BATTLE EVER DEVISED

When the world went to war almost every infantryman of every combatant nation carried a magazine-fed bolt-action rifle. In the case of the British this was the venerable Lee Enfield .303, whilst Germans carried the Mauser Karabiner 98k and the Russians the Nagant – and comparable weapons were in use by all the armed nations of the time. However, the Amercan infantryman had the singular good fortune to bear the first self-loading rifle to see active service as a standard arm – the M1 Garand. Armed with the Garand a man could easily out shoot an enemy armed with an old-fashioned bolt-action rifle, leading US General George S. Patton to call it 'the greatest implement of battle ever devised.'

In fact the Russians had also developed their own Tokarev SVT-40 gas-powered self-loading rifle as a replacement for the bolt-action Nagant. The Red Army was in the process of re-equipping with these more modern weapons when the Germans invaded. However, faced with a pressing need to replace lost men and equipment the Russians chose to concentrate on producing the simpler, cheaper and more robust Nagant bolt-action rifles together with fully automatic weapons such as the PPsh-41. Even so, more than 5 million of these SVT semi-automatic rifles were supplied to the Red Army. The Germans attempted to develop a semi-automatic weapon in 1941 but early designs proved inadequate. The first self-loading rifle to be accepted into service was the Gewehr 43 and nearly half a million were made between 1943 and 1945. Meanwhile, German weapon development was already taking a significant leap forward with a new fully automatic rifle – the *Sturmgewehr* StG44.

The M1 Garand was the standard US infantry rifle of World War II. A carbine version was also produced for use in situations where the length of a rifle's barrel made it impractical.

Achtung, Jabos! A German 88 takes on Allied air supremacy

The target unit and every unit (from either side) within 12" of the target unit is potentially pinned simply because the aircraft has been spotted. Roll D3-1 for each unit and add the indicated number of pin markers.

Once any pinning has been worked out, place a suitable token 18" away from the intended target to represent the point where the aircraft opens fire or deploys its payload. Whilst any suitable coloured chit will suffice to mark the spot, many players will doubtless wish to employ a model aircraft in this role. This certainly looks more threatening!

Once the aircraft model or token has been positioned resolve shooting from flak units. If either side has any flak units then work out if the aircraft has taken damage during its attack run as described for *Flak* opposite. Note that it is possible for flak units from either side to inflict damage on attacking aircraft – as troops would often mistake friendly aircraft for enemy.

Once damage from flak has been worked out, and assuming the plane has not been shot down or forced to abort its mission, roll a D6 to determine the type of attack against the target unit.

FLAK

All enemies with the flak special rule that are not currently *down* automatically fire at the attacking aircraft if the token or model lies within their firing arc and range. Flak units fire regardless of whether they have already taken an action or not that turn. Flak fire does not require an action and takes place outside of the normal turn sequence. The usual line of sight rules are ignored when firing at aircraft because the target is plainly visible in the sky. Measure the range between the shooter and target ignoring everything in between. Rolls to hit aircraft are always at a –2 penalty because they are fast moving targets and inherently difficult to hit.

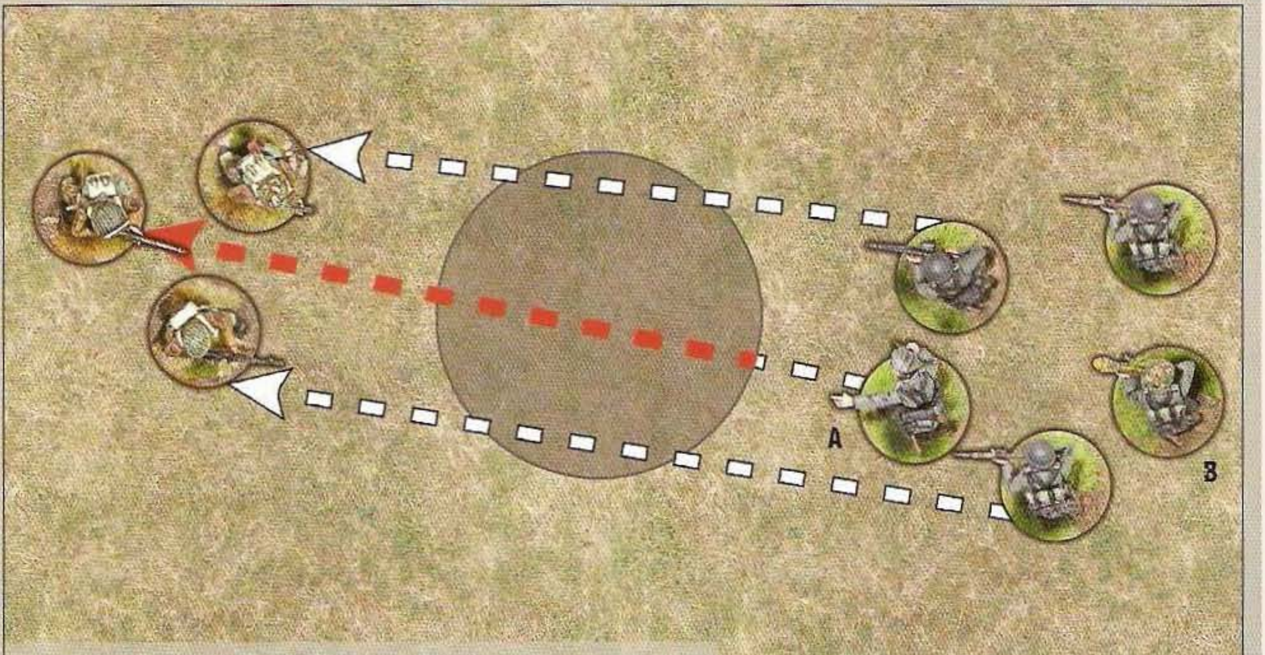
Friendly flak units that are not currently *down* must test to hold their fire against attacking aircraft if they are in arc and range of the marked position. Roll a D6 for each flak unit. To successfully hold their fire inexperienced units must roll a 5 or 6, regular units a 4, 5 or 6, and veteran units a 3, 4, 5 or 6. Units that do not manage to hold their fire will shoot at the incoming aircraft as if it were an enemy.

Any flak units that are in *ambush* lose their ambush status if they shoot at aircraft, in which case their order die is flipped to *down*. Any units that are *hidden* as described in the scenario section lose their hidden status if they shoot at aircraft (see p117)

Do not roll to damage the aircraft if it is hit, instead tally up the number of hits scored in total. Once all flak units have fired, if the plane has suffered 6 or more hits in total it has been shot down or damaged and forced to abort the attack. The aircraft marker or model is removed. Otherwise proceed with the ground attack, with the number of hits suffered from flak affecting the result of the attack as already noted.

DIE ROLL	RESULT
1	***Strafing fighter*** The target takes one additional pin marker and 3D6 hits with a +1 penetration value. Reduce the number of hits by 1 for every hit the plane has suffered from flak. Armoured targets are hit on the top armour. Infantry and artillery can go *down* to halve the hits taken in the same way as from HE shells (see p53).
2 or 3	***Fighter-bomber*** The target takes two additional pin markers and 2D6 hits with a +2 penetration value. Reduce the number of hits by 1 for every hit the plane has taken from flak. Armoured targets are hit on the top armour. Infantry and artillery can go *down* to halve the hits taken in the same way as from HE shells (see p53).
4, 5 or 6	***Ground-attack aircraft*** This is either a dive-bomber or a fighter-bomber equipped with rockets or heavy automatic cannons to attack armoured targets. The target takes three additional pin markers and 3D6 hits with a +4 penetration value. Reduce the number of hits by 1 for every hit the plane has taken from flak. Armoured targets are hit on the top armour. Infantry and artillery can go *down* to halve the hits taken in the same way as from HE shells (see p53).

DIAGRAM 9



SMOKE BARRAGE

German soldiers A and B draw line of sight through more than 2" of smoke, so they cannot see to shoot their targets. The other models in the shooting squad draw line of sight through less than 2" of smoke, so they can shoot but their target is counted as being in soft cover.

TOP SECRET

THE GO ANYWHERE HALF-TRACK

The half-track proved of immense worth when it came to transporting men and equipment across terrain impassable to ordinary trucks and wheeled vehicles. The Germans, Americans and Russians all built half-tracked trucks with a cab and wheels at the front and tracks at the back – one German version was known as the Opel Maultier or 'mule'. Half-tracks combine the ability of a tracked vehicle to move over loose or rough ground, but they steer from the front wheels just like a conventional vehicle. As wargamers our special interest lies not in these mundane workaday vehicles – worthy as they are – but in the armoured carriers that will transport our troops into battle. Soviet, British and American forces all made use of the US-built M2, M3 and M5 carriers. These carriers look much the same, though the M2 is shorter being designed as an artillery tow rather than a troop carrier. All of these carriers were adapted to mount heavy weapons including anti-tank guns, howitzers, anti-aircraft guns and mortars. The same is true of the German half-track personal carriers: the Sdkfz 250 and larger 251 Hanomag. Panzergrenadiers – the elite fighting troops of the mechanised Panzer divisions – used the Hanomag to keep up with the tanks as they advanced. The Hanomag's thick armour was easily enough to protect the occupants from small-arms fire and shrapnel. The Germans also had a half-track artillery tractor, the Sdkfz 7. This powerful tractor was adapted to carry flak guns as a mobile anti-aircraft weapon. There was even a half-tracked motor cycle – the Kettenkrad.

Many units share special rules as indicated in the Army Lists in this book and the Bolt Action supplements. Further specific rules are included in the entries of individual units where appropriate. Note that not all of the rules listed here apply to units in the Army Lists of this book, but they are included so that players can get an idea of which rules might be appropriate for other forces. For example, the fanatic rule for Japanese island garrison troopers, tough fighters for Ghurkhas, and so on.

TOUGH FIGHTERS

Some troops excel at close quarter fighting, whether because of special selection or training, like commando units, or due to cultural disposition as in the case of Ghurkhas and other colonial troops. Each model in a unit with this special rule has **two attacks** in close quarter combat against infantry and artillery, regardless of what weapons are carried.

FANATICS

Fanatics are unwilling to give in and will die fighting rather than flee or surrender. When a fanatic unit loses half of its numbers from enemy fire it does not take a morale check, and it continues to fight as normal so long as it includes at least two men. Should the unit be reduced to one man he must make the check as normal.

When a fanatic unit is defeated in close quarter fighting, the fight counts as a draw instead and another round is immediately fought. Continue fighting until the fanatic unit wins, is completely wiped out or is defeated and left with a single model in which case it is destroyed.

SHIRKERS

Not all those herded to the front and handed a rifle are willing participants. Some troops might be conscripted militia from occupied territories, or they might be criminals or captives – reluctant or inept fighters looking to desert at the first opportunity. Shirkers must always take an order test when given an order, even where they are not pinned, and always count pinned markers as double – i.e. one pin marker is a –2 penalty, two is –4 and so on.

GREEN

Raw troops are usually rated as inexperienced with a morale value of 8 – but we shall also make allowance for troops who, whilst inexperienced, may be extremely confident or even foolhardy. Green troops might run at the first shot fired – or they might surprise the enemy by proving remarkably fierce or resistant. Either way they are unpredictable. Green units are inexperienced and given a morale rating of 8. The first time the unit suffers a casualty roll a die. On a roll of a 1 the unit suffers an additional D6 pin markers and goes *down* – if it has already taken its action this turn flip the order die to *down*, if not then place an order die from the dice pot to show the unit is *down*. There is no further effect. On a roll of 2, 3 or 4 the unit fights on as you would expect – no further account is made of the fact it is green. On a 5 or 6 the unit is immediately up rated to regular with a morale value of 9 for the rest of the battle.

TANK HUNTERS

Tank hunter units are equipped with specialised close quarter anti-tank weaponry. This includes anti-tank grenades – possibly launched from a rifle – sticky bombs, gammon bombs, satchel charges, lunge bombs, Molotov cocktails and the like. If a tank hunter unit wins an assault and scores damage against an armoured vehicle, the effect is resolved on the *Damage Result* table as for a normal anti-tank penetration rather than as for superficial damage. See p90 for an explanation of how assaults against armoured vehicles are resolved.

SNIPERS

A sniper team includes a marksman with a high-power telescopic sight and can also include an observer or loader.

German Fallschirmjägers – elite troops, armed to the teeth!

TOP SECRET

We do not normally think of cavalry when we imagine combat during World War II, but mounted troops played their part even if the glory days of the mounted arm lay a hundred years before. On the Eastern Front both Russians and Germans used Cossack cavalry, the last significant used of mounted troops by the British took place during the Anglo-Iraqi War of 1941, whilst the Polish cavalry charge at Krojanty in 1939 has passed into folklore – largely because of the wrongful assumption the gallant Poles charged against German tanks whilst in fact their target was an infantry battalion.

When a sniper shoots using a *fire* or *ambush* order the following special rules apply. If a sniper shoots in any other situation the shot is counted as an ordinary rifle shot.

Rifle range is increased to 36'' and the sniper adds +1 to his die roll to hit the target. The sniper is a crack shot equipped with a superior weapon and can pick off targets at long range.

The sniper can aim at any individual model that he can see in the target unit, and if the target is hit and killed that specific model is removed as a casualty in the same way as for *exceptional damage*.

When rolling to hit, a sniper ignores all dice penalties for the target's cover. If shooting at artillery a sniper ignores the *gun shield* rule.

CAVALRY

Cavalry are generally treated as units of infantry except where noted below. Cavalry can dismount and fight on foot as infantry, from which point none of these rules apply. To facilitate this, players will need mounted and foot versions of cavalry models.

A cavalry unit moves at 9'' at an *advance* and 18'' at a *run* with the same movement rules and restrictions for infantry, except that we do not allow cavalry to enter buildings.

Cavalry units cannot react to enemy fire by going *down*. However, they can react by making an immediate *escape* move directly away from the troops shooting at them in the same way as a recce vehicle. See the Vehicle rules p95.

A cavalry unit can dismount as part of any *advance* move. Once dismounted riders move and fight as infantry. Troops cannot remount once dismounted.

Cavalry units can carry infantry small arms, but the only weapon that can be fired whilst mounted is a pistol or a carbine in which case it is treated as a pistol. Note that carbines are treated as rifles when used by troops on foot. All other weaponry can only be fired if dismounted.

Cavalry units fight at close quarters with three attacks per model regardless of weaponry. This makes a mounted charge quite a practical proposition if the riders are able to weather their enemy's reaction shooting. Following combat, cavalry are allowed to roll an extra die when they make their regroup move – 2D6'' rather then D6''.

MOTORBIKES

Motorbikes were primarily used by dispatch riders and the like, although during the early part of the war German reconnaissance units also made use of motorbikes or bikes and side cars. As with troops mounted on horses we'll treat these as a variant of infantry units.

Motorbikes are generally treated as units of infantry except where noted below. Bikers can dismount and fight on foot as infantry, from which point none of these rules apply. To facilitate this, players will need mounted and foot versions of biker models.

The biggest artillery pieces sit far behind the lines and their murderous fire is called upon from many miles away. However, smaller field guns and anti-tank guns operate closely with the infantry and will sometimes be called upon to fire directly at targets over open sights. Both field artillery and anti-tank guns are useful against armoured vehicles, and larger anti-tank guns are also capable of firing a high-explosive shot, which makes them effective against infantry.

Up to this point we have talked primarily about the rules for infantry. This section introduces a new kind of unit: the artillery. For the most part an artillery unit consists of a gun and its crew or some similar weapon such as a rocket-launcher or multi-barrelled launcher such as the German Nebelwerfer. When we talk of artillery pieces as 'guns' in the game rules it is assumed this includes all such weapons.

ARTILLERY UNITS

An artillery unit consists of two elements – the gun model and its crew. The crew are arranged within 1" of the gun so that the gun and crew together form a single unit.

ARTILLERY & MEASURING DISTANCES

When firing at an artillery unit, measure the distance to the crew or gun model, whichever is closer to the firer. If measuring to the gun model, always use the carriage and ignore the barrel of the gun.

ARTILLERY & SIGHT

When an artillery piece shoots directly at a target 'over open sights' the line of fire is worked from the point of view of the gun by sighting along its barrel.

When an artillery piece employs *indirect* fire to shoot over intervening troops or terrain, sight and range are worked out from any of the crew models. Weapons that fire indirectly can also be provided with spotters as indicated in the Army Lists and described on p118.

ARTILLERY & MOVEMENT

Some artillery pieces are so large that as far as our game is concerned they are completely immobile, for example coastal defence guns. Such weapons do not form a regular part of our game although they could feature in a scenario that was devised to incorporate them.

Most of the guns described here and in the various Army Lists represent mobile guns mounted on wheeled carriages to allow their crew to manhandle them around the battlefield. Even so, they are still very heavy and cumbersome – especially the larger pieces – and therefore orders of *advance* and *run* are treated differently from infantry units, as follows:

ADVANCE

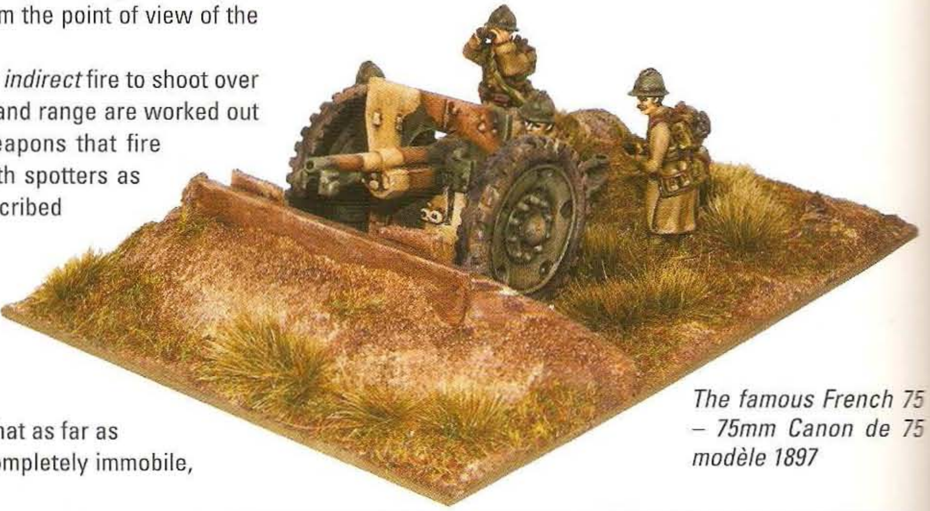
This order allows the gun to be rotated in place to face any direction. The gun cannot be brought to bear in this way and fired in the same turn.

RUN

Pushing an artillery piece around is extremely hard work. This order allows any wheeled light or medium gun and crew to move up to 6" in any direction. Heavier guns, and all guns that lack a wheeled carriage, can only be moved by means of a tow. As with any *run* order, the gun cannot be fired in the same turn as it moves.

If artillery crews are reduced to one man then the unit cannot be issued a *run* order. This effectively stops all guns moving without the assistance of a towing vehicle.

Note that some guns, notably flak guns, are designed to be fired from a cruciform or similar stable platform and therefore do not have an integral wheeled carriage. In such cases the gun would most likely be attached to a separate carriage for transportation. Guns that do not have wheels cannot be moved around by their crew and therefore cannot be issued a *run* order regardless of their size or type.



The famous French 75 – 75mm Canon de 75 modèle 1897

TOP SECRET

BAZOOKA!

When the Americans of the 5th Tank Destroyer Group knocked out a Panther tank they decided to test its resilience to bazooka rounds. Sixteen shots were fired at the German tank to ascertain the effectiveness of its armour and components. Four shots against the road wheels succeeded in blasting holes in the outer wheels but failed to damage the inner wheels altogether. One shot struck the side armour and scored a clean penetration. Another struck the track and sheared away a bolt head, but did not break the track. Two shots went straight through the side of the turret, in each case sending shrapnel ricocheting around the inside of the turret. Six shots were fired against the rear of the tank with mixed results. Two shots struck the rear plate and detonated beneath the tank to no effect. Another shot struck the towing-jack causing no damage to the tank itself. A fourth shot blasted away an exhaust pipe but otherwise caused no damage. Two further shots struck the rear of the tank and penetrated leaving a hole a half inch in diameter through two inches of armour plate. Two shots were made against the front of the tank and neither penetrated; one gouged a gash no more than an inch and a half in the front plate, whilst the other struck the towing hook with no effect on the tank's armour. The testers concluded that the bazooka could easily penetrate the sides and rear of the tank and the side of the turret, with the side armour being especially vulnerable. The wheels and tracks did not make for good targets, because the possibility of stopping the tank was judged to be remote. Against the rear of the tank it was possible for shots to be deflected by the various items of stowage, exhausts, and such-like, but such shots were deemed worthwhile because of the likelihood of the engine and fuel catching fire following a hit. On the other hand the sloping front armour made it impossible to get an effective shot, because shells would be deflected on impact dispersing the blast of the charge.

A motorbike unit moves at 12" at an *advance* and 24" at a *run* with the same movement rules and restrictions for wheeled vehicles, except that bikes are allowed to make any number of turns as they move.

Motorbike units cannot react to enemy fire by going *down*. However, they can react by making an immediate *escape* move directly away from the troops shooting at them in the same way as other *recce* vehicles. See the Vehicle rules for more about recce vehicles on p95.

A motorbike unit can dismount as part of any *advance* move. Once dismounted riders move and fight as infantry. Troops cannot remount once dismounted.

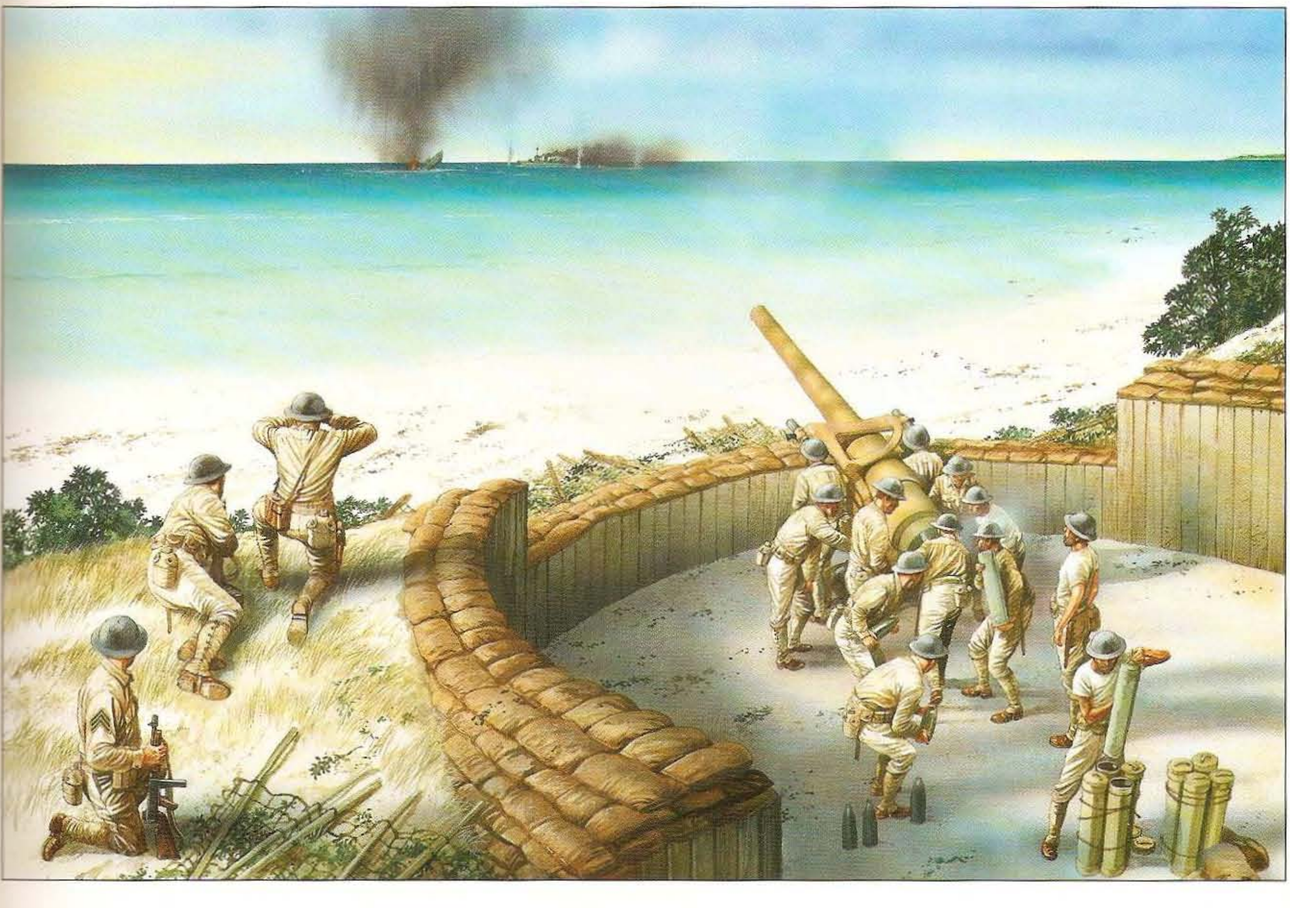
Bike riders can carry infantry small arms but cannot shoot whilst moving. Sidecar riders can shoot when making an advance as with other infantry. All other weaponry can only be fired when stationary, i.e. with a *fire* action, in which case we assume riders momentarily halt or get off their machines to shoot.

Bikes are not allowed to make an assault, and if assaulted they can make an immediate escape move as for other *recce* vehicles. If attacked at close quarters they are struck in the same way as soft-skin vehicles – i.e. they cannot be hit if making a *run* action, a 6 is needed to hit if they are making an *advance* action, and otherwise a 4, 5 or 6 is required to score a hit. Damage is resolved as appropriate for their troop quality – inexperienced, regular or veteran. Motorbikes fight back as infantry. Each man fights – both riders and sidecar passengers. We imagine any bike riders unlucky enough to be fighting at close quarters will abandon their machines to fight and then remount should they survive. Should they win the combat they can regroup 2D6" rather then D6" in the same way as horsemen.

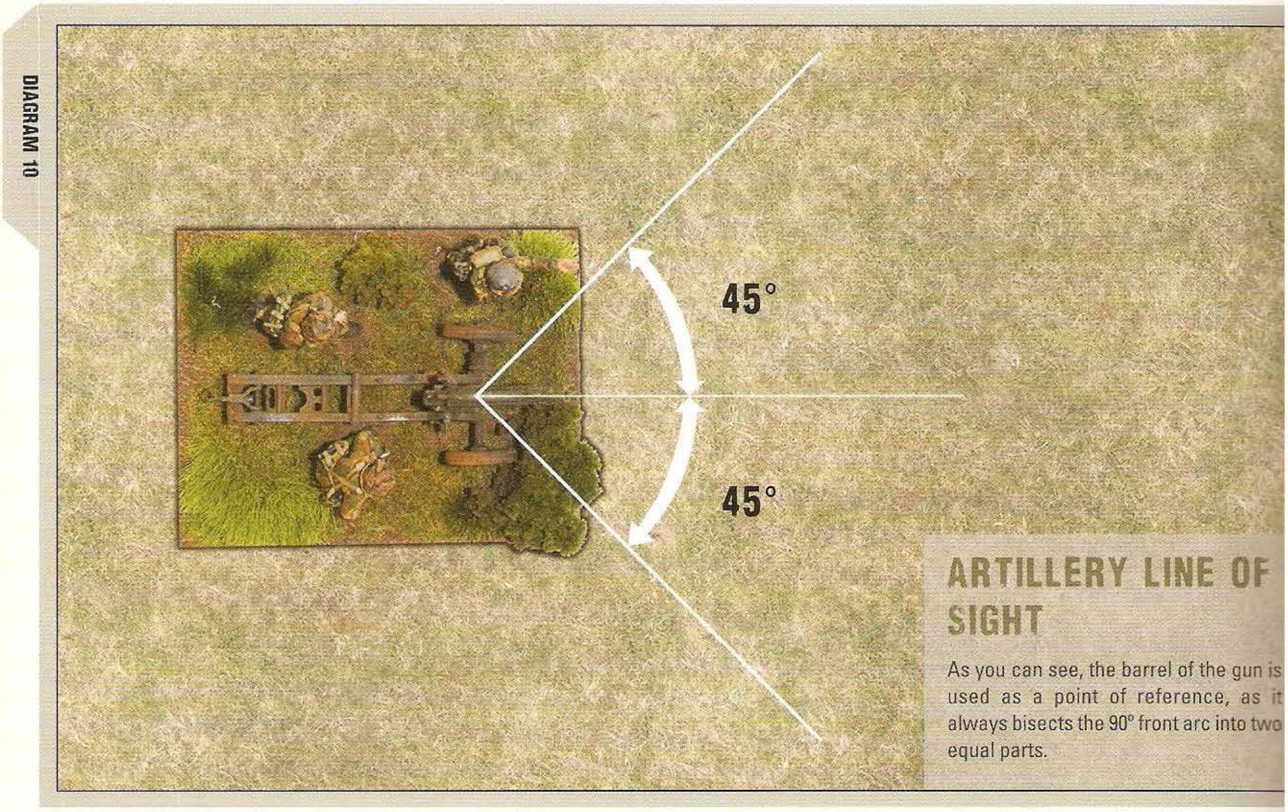
The Soviet God of War – the 76mm ZiS-3 divisional gun

TERRAIN

The effects of terrain on movement, including artillery units, has already been described on p27. In general it's best if artillery sticks to clear ground during the battle, but guns are allowed to deploy in rough ground or buildings when the battle begins, although they will be unable to move for the duration of the fighting.



Battery L sinks the Hayate, by Peter Dennis © Osprey Publishing Ltd. Taken from Campaign 144: Wake Island 1941.



ARTILLERY LINE OF SIGHT

As you can see, the barrel of the gun is used as a point of reference, as it always bisects the 90° front arc into two equal parts.

TOWING GUNS

Some vehicles can tow artillery around the battlefield. The gun carriage is hooked either directly to the towing vehicle or via a limber, and the gun's crew rides in or on the vehicle. The rules for mounting/dismounting infantry units on p93–94 are also used for limbering and unlimbering guns. If you have a suitable towed model place the gun in position at the rear of the towing vehicle. Towed guns cannot be shot at, only the tow itself, so ignore towed artillery pieces when working out range and line of fire.

An artillery unit always takes all of the space availabl
a transport, which will therefore not be able to carry any o
troops until the artillery unit unlimbers.

Some artillery pieces are too heavy or simply not made t
towed around by the kind of vehicles designed to trans
infantry in battlefield conditions. The Army List entries
transport and towing vehicles specify the types of artillery
can be towed. For example, a small vehicle such as a jeep c
be only able to transport a light anti-tank gun, whilst bi
vehicles are able to transport medium artillery units, and s

A Waffen-SS 10.5cm LeFH 18/40 howitzer prepares to fire

ARTILLERY & SHOOTING

It requires the entire efforts of the gun's crew to operate it – crewmen serving a gun cannot also shoot with other weapons they might have.

LINE OF SIGHT

When firing a gun imagine you are looking through the sights of the gunner firing it. Try to look as closely as possible along the barrel of the gun itself.

ARC OF FIRE

Guns mounted on a carriage have a restricted field of fire. All guns can fire only against targets to their front 90° arc as indicated by the direction the gun is pointing in.

GUN SHIELDS

Many guns are equipped with an armoured gun shield to provide protection to the crew. If a gun is equipped with a gun shield, the die roll an enemy requires to score damage from the front arc of the gun as described above of the gun is increased to 6+ regardless of the quality of the crew. This die roll is modified by the penetration value of the weapon in the usual way.

DAMAGE ON ARTILLERY UNITS

The effect of damage on artillery units is handled differently for small-arms fire and heavy weapons fire.

Small-arms fire cannot damage the gun itself. Casualties are always taken from amongst the crew even where exceptional damage is caused.

Heavy weapons fire is also resolved against the crew in the same way as for small-arms fire; however, in this case exceptional damage indicates that the gun's firer is killed and the gun itself is also destroyed. The shot has disabled the gun or possibly caused its ammunition to explode.

If the gun is destroyed the entire unit is destroyed and its order die is removed from the dice cup. However, surviving crewmembers may be redeployed to other guns as noted below.

If a gun's crew are all killed the gun itself is abandoned and an order die is placed besides the gun to show this. The die is not returned to the dice pot at the end of the turn, but remains where it is to indicate the gun is abandoned. Abandoned guns can be re-crewed during the game as noted below. If not re-crewed by the end of the game abandoned guns are treated as destroyed.

There is no need to keep the usual 1" distance from abandoned guns, nor are they considered to be friendly or enemy units – they are treated as if they were wrecks or parts of the terrain. If an enemy unit moves within 1" of an abandoned gun it is either captured or disabled and is removed as destroyed.

French gunners repel the invaders' armoured thrust

The tank was first used to its full capability during World War II and formed an important strength of the armies of all the major combatants. Tanks are fast moving, heavily armed and almost impervious to regular infantry arms. As well as these powerful fighting machines all manner of vehicles were employed during the fighting, including trucks, jeeps and armoured carriers.

British Sherman V

This section deals with a different type of unit – vehicles – including jeeps, trucks, armoured cars, assault guns, and tanks. Before looking at the role of vehicles in depth, we shall briefly discuss how the various rules already given differ in respect to vehicles. In all other respects the rules for vehicles and infantry are the same.

VEHICLE DESCRIPTIONS

Different vehicles have different damage ratings, carry different kinds of weapons and may have specific abilities relating to the kind of vehicle – for example trucks and armoured carriers can transport troops, tractors and some other vehicles can tow guns, and so on. These specific details are covered by the vehicle descriptions given in the Army Lists either in this book, or in the various Bolt Action supplements describing each army in depth and including information on many more vehicles.

VEHICLE UNITS

Vehicle units always consist of a single model: a tank, a half-track carrier, a truck, a jeep and so on. All vehicle units have crew sufficient to operate them, although it is reasonable to simply assume these are present where necessary. We do not take separate account of the crew: once their vehicle is destroyed they are considered to be out of action as well.

VEHICLES & MEASURING DISTANCES

Vehicle models do not normally have a base so most distances are measured to and/or from the hull of the model itself. When shooting with the vehicle's armament measure from the muzzle of the weapon fired. Note that this does confer a minor advantage to tanks and tank destroyers armed with especially long barrelled guns – a fair reflection of reality!

VEHICLES & SIGHT

For general purposes what a vehicle can see is determined from the position of its crew or, in the case of a tank or similar vehicle where the crew are concealed, from the commander's cupola atop the turret, or wherever the usual vision slits or periscopes are positioned on the hull.

When shooting with vehicle-mounted armament the line of fire is worked out by sighting as closely as possible along the barrel of the weapon fired.

Although players often like to model their armoured vehicles with the commanders and other crew exposed – as this makes for a very attractive feature – we do not penalise crews that would normally be safe and secure inside their tank, armoured car, and so forth. We will assume that crews withdraw into their vehicles and close any hatches as they go into combat. So, in the case of such vehicles ignore any exposed crew models when it comes to working out what can be seen – they retreat inside their tank or other armoured vehicle.

VEHICLES & ORDERS

With the exception of the *down* order as noted below, vehicles are given orders in the same way as infantry. Exactly how the different orders apply to vehicles is covered below, but the basic procedure is the same as already described for infantry units.

A vehicle cannot be given a *down* order because it obviously can't 'get down' in the way that an infantryman can. A vehicle is not allowed to go down as a reaction when shot at. Instead, we reserve the *down* face of the order die to indicate a vehicle that is halted and unable to make any further action that turn for whatever reason: perhaps it has been immobilised by enemy fire, or maybe it has been brought to a temporary halt in some way. This is all that the *down* order represents in the case of a vehicle. A vehicle that is marked with a *down* order die does not receive any of the benefits otherwise described for infantry units that have gone down.

Vehicles that fail an order are marked as down to show that they are halted that turn. If they have pin markers they must first move away from enemy to their front before going *down* as noted below.

VEHICLES & PINNING

Fully enclosed armoured vehicles, such as most armoured cars and tanks, can only be pinned by hits from **heavy** weapons. Small-arms fire cannot pin enclosed armoured vehicles, which simply ignore any hits from rifles, pistols, submachine guns, light machine guns, medium machine guns and other small arms.

Open-topped armoured vehicles such as carriers, some armoured cars, many tank destroyers and most mobile artillery are pinned by hits from small arms in the same way as soft-skins and infantry.

A pinned vehicle is treated somewhat differently to a pinned artillery or infantry unit. A pinned vehicle must still take an order test to attempt an action, but if this is failed and if the vehicle has visible enemy to its front arc it **must** make a basic rate reverse move away from the enemy if able to do so before going *down* (front arcs are explained on p83). This represents the vehicle reversing away from danger and then coming to a halt. If a vehicle is unable to comply because there are friends or some impassable obstruction blocking its path, or if it reaches the table edge, then it moves as far as it can and goes *down*. If unable to move because it is immobilised it just goes *down*. If there are no visible enemy to its front arc then the vehicle goes *down* where it is.

VEHICLES AND OFFICERS

Officers can potentially ride in vehicles, in which case their command bonus applies to the officer unit itself, any other units carried in the same vehicle, and the vehicle. The normal 6" range for the command bonus does **not** apply if the officer is in a vehicle. He must get out of the vehicle to benefit from his 6" command range. See Officers p62.

German Panther Ausf G

VEHICLES & MOVEMENT

Vehicles are faster than men on foot over most types of terrain, but they are considerably less manoeuvrable. Orders of *advance* and *run* affect vehicles differently from infantry, and even tracked vehicles differently from wheeled ones. The differences are explained below.

ADVANCE

This order represents the vehicle advancing at a cautious speed, stopping or slowing down now and then to take a shot against the enemy. This is the basic or standard movement rate for vehicles on the battlefield.

Tracked vehicles move straight forward up to 9". At any point during this move (before moving, after, or at any point between) the vehicle can make a single pivot around its centre of up to 90° to face in a different direction.

British Churchill under fire

Wheeled vehicles are the same as above but it moves up to 12" and can make up to two 90° pivots at any point during its move. These two pivots can be combined in a single pivot of up to 180°.

Half-Tracked vehicles move at the same speed as tracked vehicles but with the same manoeuvrability as wheeled vehicles. A half-track moves straight forward up to 9" and can make up to two 90° pivots at any point during its move. These two pivots can be combined in a single pivot of up to 180°.

RUN

Whilst vehicles cannot literally 'run' we use this order to represent a move at 'full speed'. The vehicle drives as fast as it possibly can giving up all idea of firing.

Tracked vehicles move straight forward more than 9" and up to 18". The vehicle may not make any changes of direction.

Wheeled vehicles is the same as above but it moves more than 12" and up to 24", and can make a single 90° pivot at any point during its move.

Half-Tracked vehicles move at the same speed as tracked vehicles but with the same manoeuvrability as wheeled vehicles. A half-track moves straight forward more than 9" and up to 18" and can make a single 90° pivot at any point during its move.

REVERSE MOVES

A vehicle can reverse straight backwards only at up to half its standard *advance* rate unless it is a **recce** vehicle.

A recce vehicle can reverse at its full *advance* rate in most instances and can manoeuvre as if driving forward i.e. a wheeled vehicle or half-track can make two 90° pivots or and a tracked vehicle can make a single 90° pivot. As indicated in the vehicle descriptions, some recce vehicles can reverse at their *run* rate if they are especially small and manoeuvrable or if they have dual direction steering – as did some German armoured cars. These exceptions are indicated in the Army Lists.

TERRAIN CATEGORY	INFANTRY	ARTILLERY	WHEELED VEHICLES	TRACKED VEHICLES
Open Ground	OK	OK	OK	OK
Rough Ground	No Run	No*	No	No Run
Obstacle	No Run	No	No	OK*
Building	OK	No*	No	No (!)
Road	OK	OK	×2	×2

Key:

OK – The unit can move through the terrain without hindrance – this is the default or normal rate for all kinds of troops over open ground.

OK* –The unit can cross this kind of terrain without hindrance unless it has been designated as an anti-tank obstacle, or impassable bocage, or the equivalent, in which case it is impassable to all types of vehicle.

No Run – The unit cannot cross or move within this kind of terrain if undertaking a run action, but can cross or move over with an advance action.

No – The unit cannot enter or move within this kind of terrain at all.

No* – The unit cannot enter or move within this kind of terrain, except that it can be deployed within the terrain at the start of the game. In this case it cannot move once deployed. This represents situations where guns are 'dug in' to positions prior to the battle as discussed in the section on Artillery.

No (!) – The unit cannot enter or move within this kind of terrain, except that heavy and super-heavy tanks may move through and demolish some buildings in some situations. See the rules for buildings on p99.

×2 – The unit's move rate is doubled if it moves entirely along a road or track. This enables vehicles to move rapidly along roads where the opportunity permits.

TERRAIN

The effect of terrain on movement, including vehicles, has already been described on p27, but for ease of reference, the Terrain Chart is repeated above.

VEHICLE MOUNTED WEAPONS

Most vehicles carry some sort of armament even if it is only a single machine gun. Tanks and other armoured fighting vehicles often have a main weapon mounted in a turret and additional machine guns as well. On the whole, weapons mounted in vehicles are treated in the same way as already described in the Shooting section, with the following exceptions and additions.

FIXED AND TEAM WEAPONS

We assume that vehicles have sufficient crew to employ whatever weapons they carry. The special rules that apply to infantry operated *team* weapons and artillery are ignored. The special rules that apply to infantry operated *fixed* weapons are also ignored when firing vehicle-mounted weapons (see p50). The following rules apply to vehicle-mounted weapons instead.

VEHICLE FACING AND FIRE ARCS

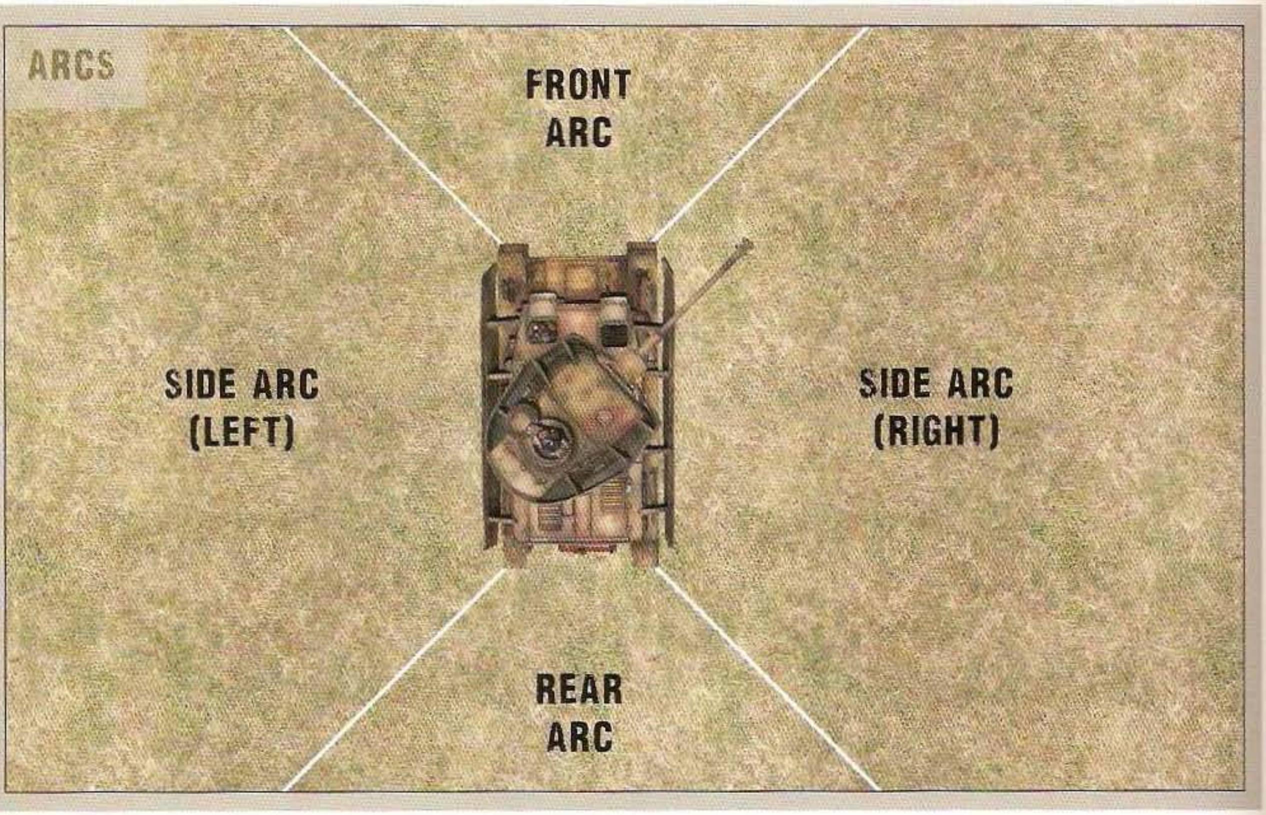
Weapons mounted on a vehicle are likely to have only a restricted field of fire. All weapons mounted on a vehicle will be able to fire in certain specific arcs, as described in the vehicle's entry in the appropriate force list.

To determine these fields of fire, you will need to imagine lines bisecting the corners of your vehicle to create four 90-degree arcs, as shown in the diagram overleaf.

As you can see we divide a vehicle's potential of fire into four: the front, the rear, and the two side arcs (left and right).

Soviet T-34/76

DIAGRAM 11



ARCS

Casement- or Hull-mounted weapons. The vehicle description indicates the arcs covered by any hull-mounted weapons the vehicle has. Vehicles that have guns mounted directly to the hull or a casement built on top of the hull will normally have a forward facing fire arc, for example the main gun on a Jagdpanther or Jagdtiger, or the machine gun mounted onto the front glacis of most tanks such as the Sherman, Panzer IV, Panther and so on.

Turret-mounted weapons. Weapons mounted on turrets can usually fire all around (i.e. into any arc). Some turret-mounted weapons have restricted arcs because of the design or position of the turret, and these cases are indicated in the description for the vehicle. It is not strictly necessary that model turrets are able to rotate, as many players prefer to glue turrets firmly in place to prevent accidental damage. Just take it as read that turrets are able to rotate, and be prepared to compensate for this when measuring shots and working out line of sight.

Pintle-mounted weapons. Some vehicles carry one or more machine guns on a swivelling type of mount. These pintle-mounted weapons were commonly fitted to soft-skins such as jeeps and trucks, as well as to armoured carriers. They were also fitted on top of tank turrets for defence against low-level air attack; however, they were inevitably used against ground targets when the opportunity arose. Depending on where they are mounted, a pintle-mounted gun can cover anywhere from a single arc to 360 degrees as noted in the vehicle's description. Pintle-mounted machine guns can be fired against aircraft and therefore have the *Flak* special rule (see p67).

Co-axial weapons. A co-axial weapon is usually a medium machine gun mounted alongside a tank's main gun and has the same arc of fire. Co-axial machine guns were used as defence against infantry and were operated by the tank's gunner. A co-axial can be fired instead of the vehicle's main weapon, but not at the same time – the player must choose either to fire the main gun or its co-axial MMG.

MULTIPLE TARGETS

When a vehicle shoots it can fire with all the weapons it carries and which it is otherwise permitted to use. Each weapon can shoot at a target that lies within its range and arc of fire. Where

German Panzers at the battle of Totensonntag, by Peter Dennis © Osprey Publishing Ltd. Taken from Command 5: Erwin Rommel.

more than one weapon can be brought to bear in the same arc, each can shoot at the same or different targets as the player wishes.

SHOOTING AT VEHICLES

TARGET REACTION

When shooting against vehicles, proceed as already described in the Shooting section. In most cases the *Target Reacts* step does not apply, as vehicles are not permitted to go *down*. However, note that vehicles that have the special *recce* rule are allowed to react by making an *escape* move before the shot is worked out as explained on p95.

ROLL TO HIT AND DAMAGE

This has already been covered in the main rules section for shooting and works the same way. The vehicle section of the *damage table is repeated below for ease of reference.* Note that the descriptive terms are used purely as a convenient way of defining the damage value of the vehicle. A vehicle defined in this way as a light 'tank' could equally well be a tank destroyer, such as a Hetzer, a motor gun carriage based on a light tank chassis, or even a light tank converted to use as a recce vehicle as were some turretless M5s, for example.

DAMAGE VALUE TABLE

SOFT-SKINNED TARGETS	RESULT NEEDED
All soft-skinned vehicles	6+
ARMOURED TARGETS	**RESULT NEEDED**
Armoured car/carrier	7+
Light tank	8+
Medium tank	9+
Heavy tank	10+
Super-heavy tank	11+

ROLL TO DAMAGE - SOFT-SKINNED TARGETS

When shooting against soft-skinned vehicles, any hit that results in damage destroys the vehicle outright. This is exactly the same as a hit on an infantry model. Either the crew have been killed or the vehicle itself has been disabled, set alight or blown to smithereens.

ROLL TO DAMAGE - ARMOURED TARGETS

Because armoured targets have a damage value of 7+ or greater it is impossible for them to be damaged by small-arms fire. Hits from small-arms fire are ignored, they cannot damage the vehicle and hits do not pin. Note that open-topped armoured targets are an exception to this general rule as described under *Open-topped Vehicles* p98.

When shooting against armoured vehicles with a heavy weapon the following penetration modifiers apply in addition to the weapon's own modifier as shown on the weapons charts (p45). Remember, these additional modifiers do **not** apply to small-arms fire or to fire against soft-skinned vehicles, but only to shots from heavy weapons against armoured targets.

ADDITIONAL PENETRATION MODIFIERS FOR HEAVY WEAPONS AGAINST ARMOURED TARGETS	
Vehicle's side or top armour	+1
Vehicle's rear armour	+2
Long range	–1

Vehicle's side armour. The sides of armoured vehicles are less thickly armoured than the front and therefore easier targets. If the shooter is positioned within the side arc of the target vehicle, the weapon's penetration value is increased by +1.

Vehicle's top armour. Some weapon strikes, most obviously mortar fire, always hit the thinner top armour of armoured vehicles regardless of the position of the shooter. These instances are specified within the rules where necessary. When striking a target's top armour, the weapon's penetration value is increased by +1.

US Wilys jeep

Vehicle's rear armour. The rear armour of tanks and other armoured vehicles is thin compared to the front. This vulnerability is compounded by the presence of engines, fuel tanks and ammo stores – any of which can make a hit to the rear devastating. If the shooter is positioned within the rear arc of the target vehicle, the weapon's penetration value is increased by +2.

Long range. Anti-tank guns have an optimum range beyond which they lose kinetic energy and become less effective. If the target is beyond half the maximum range of the weapon, its penetration value is reduced by –1.

PINNING

Soft-skinned vehicles and open-topped vehicles of all kinds that are hit but not damaged are pinned in the same way as infantry. Place a pin marker on the target. Note that some armoured vehicles have open turrets or are otherwise open-topped, as in the case of tank destroyers such as the American M10 and British Archer, as well as self-propelled artillery such as the German Wespe and Hummel. It is best to keep these vulnerable vehicles out of range of small-arms fire where possible.

Enclosed armoured targets can only be pinned by hits from heavy weapons fire. A hit from a heavy weapon will pin an armoured target regardless of whether it causes damage or not.

DAMAGE RESULTS

Not all shots that damage an armoured target will destroy it. An anti-tank shell that penetrates the hull of a tank might wreak havoc inside and kill the entire crew, but a shot could equally result in only superficial damage to a vehicle's wheels, engine or other mechanical components. It is even possible that a shell might pass right through a target momentarily stunning or panicking its crew.

To represent this an armoured target is not immediately removed when it is damaged like an infantryman or a soft-skinned vehicle. Instead, for each hit that has scored damage roll a D6 and consult the *Damage Results* table opposite to see what happens.

If the die roll to damage has scored the exact minimum needed after all modifiers are taken into account, then the shot can only cause **superficial damage**. In this case deduct –3 from the damage result dice roll before consulting the table. For example, if the roll needed to damage a tank was 5 or more and the die came up a 5 then the shooter has caused only superficial damage and the –3 penalty is applied to the result. As you will see superficial damage cannot knock a vehicle out, but it can still cause fires or panic the crew forcing them to abandon it.

DAMAGE RESULTS ON ARMOURED TARGETS

DIE ROLL	EFFECT
1 or less	***Crew Stunned.*** *The crew is stunned or momentarily overcome by smoke or shock.* Add one additional pin marker to the vehicle. Place a *down* order die on the vehicle or change its current order die to down to show that it is halted and cannot take a further action that turn.
2	***Immobilised.*** *Part of the vehicle's tracks or wheels are blown apart.* Add one additional pin marker to the vehicle. The vehicle cannot move for the rest of the game. Place a suitable marker or token by the vehicle to show this. If the vehicle has already taken an action this turn flip the order die to *down* to indicate it has been brought to a halt. If a further immobilised result is suffered the crew abandon the vehicle and it is considered knocked out (see below).
3	***On Fire.*** *The hit ignites either the vehicle's fuel or ammunition. The crew are driven into a blind panic, fearing to be trapped in a burning wreck.* Add one additional pin marker and then make a morale check for the vehicle. If the test is passed the fire has been put out or fizzles out of its own accord. Place a down order die on the vehicle or change its current order die to *down* to show that it is halted and cannot take a further action that turn. If the test is failed, the crew abandon the vehicle and it is considered knocked out (see below).
4, 5 or 6	***Knocked Out.*** *The vehicle is destroyed and becomes a wreck.* Mark the vehicle in some fashion to indicate it is wrecked – a blackened cotton ball and/or an upside-down turret work quite well. Some players like to use models of wrecked vehicles instead. Either way, wrecks of armoured vehicles count as impassable terrain. If players prefer not to bother with wrecks, destroyed vehicles can be removed altogether, perhaps blown apart by an internal explosion leaving only scattered debris.

Superficial Damage – Roll D6-3
Full Damage – Roll D6
Massive Damage – Roll two results (see below)
Open-topped hit by indirect fire – Add +1

MASSIVE DAMAGE

If an anti-tank gun penetrates an armoured target by a total of 3 or greater than the minimum score required, then the player rolls twice on the Damage Results chart and **both results** apply. For example, where 9 or more is required to penetrate an enemy medium tank, any total of 12 or more would result in *massive damage*. The player rolls two dice and applies both results from the Damage Results chart.

OPEN-TOPPED HIT BY INDIRECT FIRE

Some armoured vehicles have open fighting compartments and we describe them as *open-topped* (see p98). An explosive shell landing in an open-topped vehicle is more likely to damage the vehicle or kill its crew. To represent this, if an open-topped armoured vehicle is hit by indirect HE fire add +1 to the result roll. Note that shots landing on the upper surface of an armoured vehicle always add +1 to the penetration value as well. This means that open-topped armoured vehicles suffer a double penalty +1 both to the penetration value of the shot and +1 to the damage result dice.

British Tetrarch light tank

TANKS ASSAULTING INFANTRY AND ARTILLERY

Vehicles must normally stay more than 1" from enemy units, as per the general 1" gap rule. However, a tank driven directly at a formation of enemy infantry or artillery is capable of overrunning or scattering it. The sight of a rapidly approaching tank is enough to test the courage of even the most battle-hardened troops.

ASSAULT MOVE

Only tanks are allowed to make an **assault** move to close quarters (see p57). Note that by tanks we also mean to include assault guns, tank destroyers and other armoured vehicles of a similar kind – all of which have a damage rating of 8+ or greater. Cars, trucks and other soft-skinned vehicles, and even armoured cars and carriers with a damage rating of 7+, are **not** allowed to make an assault move.

To assault an enemy infantry or artillery unit, a tank must be ordered to move at full speed (i.e. *run*) and must be able to strike the target by driving straight forward without manoeuvring. Because a run order is required the tank cannot shoot and must move at least half of its maximum permitted move. Note that this move can take it beyond the target in some cases as described below.

TARGET REACTS

If the tank begins its assault move more than 6" away, the target can react by firing with any weapons capable of inflicting damage and/or pins. This is worked out in the same way as described for reactive shooting against infantry assaults. If the tank is not destroyed or immobilised as a result, move the tank forward until it touches the target unit. Then work out the assault as described below. Once this is done complete the tank's remaining movement if necessary. If the tank would otherwise end its move on top of the enemy infantry it has assaulted, move the infantry models aside by whatever minimum distance is necessary to get out of the way.

If further enemy infantry or artillery units lie in the path of the tank then these are also assaulted. In such cases assaults are worked out one at a time, starting with the first unit hit, then the next, and so forth. Move the tank as far as the first unit and work out the assault. If this is successful the tank can continue its move and assault the next unit, and so on up to its full *run* move. Any further units assaulted in this way can react with opportunity fire if the tank is more than 6" away at the point reached during the preceding assault. Where two or more enemy units lie closely together in a vehicle's path it is up to the player whose troops they are which to resolve first.

CLOSE QUARTERS

A tank's assault is worked out differently from close quarter combat between infantry units. Take a morale check for the target infantry or artillery unit. If the check is failed, the assaulted unit surrenders or scatters and is considered destroyed.

If the morale check is passed, the soldiers hold their nerve and allow the behemoth to pass through their ranks. The tank makes its remaining move and may end up either within the unit's formation, beyond it, or may conceivably drive into and assault a further unit as already noted above. Where infantry models that have been assaulted would otherwise end up beneath or within 1" of a tank model they are moved aside by the minimum distance. Infantry that have been passed over must keep more than 1" from the enemy tank and must maintain their own formation where possible.

An artillery piece that is assaulted by a tank is automatically destroyed whether its morale check is passed or not, but any surviving crew may be able to re-crew other weapons within 12" as noted in the Artillery rules (see p78)

French R35 light infantry tank

TANKS ASSAULTING OTHER VEHICLES

Polish TKS tankettes

Although it was not unknown for tanks to literally ram enemy tanks out of desperation, such incidents were rare and certainly did not amount to anything like a viable combat strategy! However, we shall make allowance for tanks assaulting vehicles as follows.

A tank is allowed to make an **assault** against a vehicle of any kind as described above for assaults against infantry and artillery. The vehicle that is being assaulted can react by shooting at the approaching enemy in the usual manner. If a tank wishes to assault another tank, rather than a soft-skin, armoured car, or similar vehicle, it must make its order test with a –3 modifier. It must make this order test even if it is not pinned and no order test would otherwise be required. Note that this is the same as for infantry attempting to assault an armoured vehicle, although in the case of tanks they do not fear assaulting armoured cars/carriers – see *Tank Fear* below. If the assaulting tank drives home its attack move the models into contact and work out the result as follows. Roll a D6 for each vehicle. If either vehicle is an armoured vehicle add its damage value (i.e 7, 8, 9 etc).

The highest scoring vehicle is the winner. The lowest scoring vehicle is the loser. If both score equally then both are losers.

Losers are destroyed outright if they are soft-skins. If the loser is an armoured vehicle roll on the armoured vehicle damage chart to determine damage. If the loser has an armour damage value that is greater than his opponent, then roll for **superficial damage** only. E.g. if the loser is a heavy tank and his opponent is a light tank the result is superficial damage.

Winners take no damage if they have a damage value greater than that of the loser. For example a heavy tank takes no damage if it rams a light tank and wins the assault. If winners have a damage value equal to, or lower than, the loser then they also suffer superficial damage.

Once this has been worked out, any surviving vehicles come to an immediate halt. Show this by turning each vehicle's order die to *down* or place a *down* order die next to it if it hasn't yet taken an action this turn. Finally, each surviving vehicle, whether making the assault or being assaulted, suffers one further pin marker in addition to any already taken either from reaction fire or from a damage result during the assault.

Patton's boys roll through the bocage

Tiger on the prowl!

TOP SECRET

THE MORTAR – THE INFANTRYMAN'S ARTILLERY

Mortars were reckoned vital for close range support and a typical infantry platoon would have a light mortar such as the British 2" version. This man-carried weapon had a short effective range – in the order of 500 yards – but its ability to fire at targets out of sight of the operators, lobbing bombs over obstacles and into entrenchments, made it supremely useful. Larger mortars such as the British 3" and 4" versions were organised into their own companies and provided with transport such as the Universal Carrier. Mortars can be deployed much more quickly than regular artillery, and once they have registered the target they can shoot rapidly and accurately.

Every British platoon included an infantry mortar for close range support. These weapons only had a range of about 500 yards. Larger mortars had a much greater range depending on the type of charge used.

INFANTRY ASSAULTING VEHICLES

Infantry units can assault vehicles in some situations. Troops making an assault against a vehicle are assumed to be using hand grenades and may have access to hand-held anti-tank weapons in some cases. This works in a comparable way to other assaults with the following exceptions.

TOO FAST TO ATTACK

If a vehicle is making a *run* action it is moving at high speed and cannot be assaulted by infantry. However, a vehicle that has made a *run* action and subsequently been immobilised or otherwise brought to a halt that turn **can** be assaulted, and in these cases its order die will have already been flipped to down to show this.

TANK FEAR

An infantry unit that is **not** equipped with anti-tank weapons as noted below must take and pass an order test when attempting to assault any kind of fully enclosed armoured vehicle. This test is required even if the unit is not pinned and would not normally need to pass an order test to take its action. A –3 *tank fear* modifier is always applied when testing in this way. For example, a regular unit wishing to assault a tank will need to

Token resistance – a lone Stug cannot halt the American advance

pass an order test at a Morale value of 9-3=6.

Note that this test is not required if the vehicle is open-topped, such as a Hanomag armoured carrier, an M10 tank destroyer, or an SU-76 self-propelled gun. The test is also not required if the assaulting unit is equipped with the following anti-tank weaponry: anti-tank rifles, flamethrower, bazooka, PIAT, panzerschreck, panzerfaust or anti-tank grenades or the equivalent. Note that anti-tank grenades are not considered as separate weapons, but troops designated as *tank hunters* carry them as explained on p70.

REACTION

Vehicles can fire their weapons at infantry who begin their assault from more than 6" away and within the weapon's firing arc in the usual fashion. Recce vehicles can react by making an *escape* move as described on p95.

CLOSE QUARTERS

Once the vehicle has made any reaction fire, and assuming the infantry have not been destroyed as a result, work out the assault as follows. Hits against vehicles are not scored automatically. If the vehicle is immobilised, if it has been brought to a halt and therefore has a *down* order placed next to it, or if it has yet to take an action and therefore has no order, in all these cases each attack from the infantry will score a hit on a dice roll of a 4, 5 or 6. If the vehicle is making an advance action the assaulting troops must roll 6s to score hits because it is still moving at a pace that makes it difficult to attack.

Regardless of the number of hits scored, make a single roll to damage the vehicle. Roll a D6 and add the number of hits scored to the result to determine if the vehicle is damaged. E.g. a score of 7+ is required to damage an armoured carrier, so if 4 hits were inflicted a dice roll of 3 or more would be needed to cause damage.

If the vehicle is a soft skin, or if it is an open-topped armoured vehicle, then it is destroyed automatically if damage is scored.

If the vehicle is a fully enclosed armoured vehicle and it suffers damage, then roll on the Damage Result table as for shooting. The superficial damage result applies where the score to damage is equal to the minimum score required (i.e. the same as for shooting damage). In addition, the superficial damage result also applies if the assaulting unit otherwise carries no anti-tank weapons as indicated above.

If the vehicle survives once close quarter combat has been worked out the assault is over. The assaulting infantry must make a regroup move as described for an infantry versus infantry combat.

TRANSPORT VEHICLES

If a vehicle's primary purpose is to carry troops it is referred to as a *transport*. Transports include vehicles such as trucks and jeeps as well as armoured carriers. If a vehicle is a transport this will be clearly indicated as part of the vehicle's description in the Army Lists. Various extra rules apply to transports.

TRANSPORTS AND ORDERS

Transports and any unit they carry are, of course, two separate units and must be given two separate orders. The rules for issuing orders to troops aboard transports are given below.

ROLE OF TRANSPORTS

The role of transport vehicles is to carry troops, and once they have arrived in the combat zone their job is done. Some transports are equipped with fire-support weapons such as machine guns, but even so they are not assault vehicles, and their crews would not expect to find themselves face-to-face with enemy.

To represent this all empty transports that end their turn closer to an enemy unit of any kind than to a friendly unit aside from other empty transports are automatically removed from

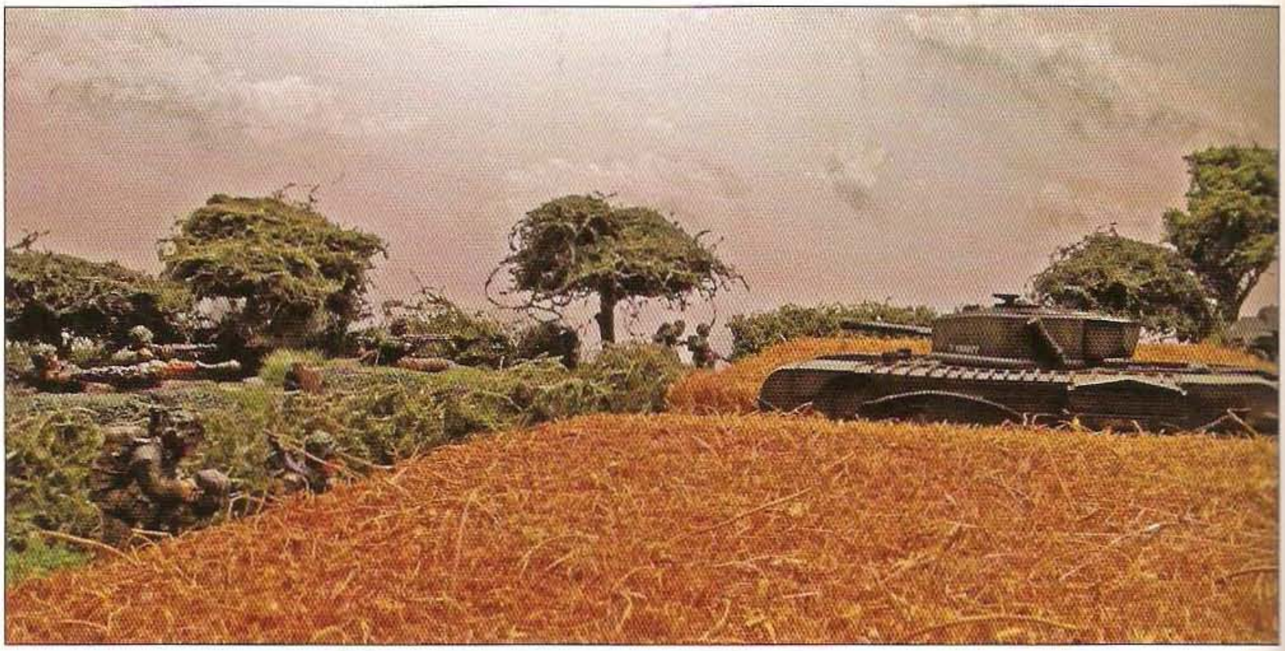
VEHICLE CREW

Once a vehicle has been destroyed we would normally assume the crew have either fallen casualty or have escaped and abandoned the locale with all haste. However, it is possible to envisage a scenario in which we wish to know for certain whether a crewman has either escaped or been killed, and so we allow for crew to try and escape with the following rule. Regardless of whether crew escape successfully or not the vehicle unit is destroyed and the order die representing it is removed from the dice cup.

When a vehicle is destroyed roll a D3 to determine how many crewmen make it out alive. Place the appropriate number of models around the wrecked vehicle. Now roll 2D6 and move the crewmen the indicated number of inches back towards their own lines, ideally towards a friendly unit or nearby cover. Move the crew as a single unit.

Escaping crew can be targeted by any enemy units in the normal way. They can also be shot at by ambushing troops. Ambushes are normally only triggered by run or advance actions, but artillery crews transferring between guns and escaping vehicle crews can also trigger ambushes.

If any crew are still alive at the end of the turn then they escape and are removed from the battlefield. Note that crew fleeing a destroyed vehicle do not remain from turn to turn – they get the rest of the turn to try and escape whilst their enemy get the rest of the turn to try and stop them!



A Churchill runs into a Waffen-SS ambush the battle and count as destroyed. We assume their crews abandon them or else they are driven rapidly away from the action and do not return.

Weapons mounted on transport vehicles can only be fired if the vehicle is carrying a unit whose members act as weapon crew. If the vehicle has no passengers it cannot fire its weapons.

MOUNTING A TRANSPORT

Transport vehicles can carry infantry units up to a specified maximum number of men. A single vehicle can transport any number of entire units so long as the total number of models aboard does not exceed the vehicle's carrying capacity. A unit cannot be divided between two or more transports.

Infantry units can be placed in a transport vehicle at the beginning of the game, or they can board a transport during the battle.

Infantry units are only allowed to get into a vehicle that is stationary. Troops cannot board a vehicle that has been ordered to *advance* or *run*. Similarly, a vehicle that is boarded during the turn cannot subsequently be ordered to *advance* or *run*. However, we **do** allow troops to board vehicles that have already moved if they have subsequently halted for whatever reason, and such vehicles will be marked with a *down* order to show this.

To board a transport, a unit must be given a *run* order and all of its models must move as close as possible to the vehicle. If they can all move to within 1" the unit has successfully climbed aboard. If only some can move close enough then the unit cannot board that turn. This keeps things manageable, and units unable to board immediately should be able to do so easily in the following turn assuming the vehicle does not move.

UNITS ABOARD TRANSPORTS

Once a unit is aboard a transport, its models are temporarily removed from the table and put aside, taking care to make it clear which models are in the vehicle. You must still give orders to units carried in this way, but the only order permitted is *down* if you want the unit to remain on the transport, or advance or run if you want them to dismount. Units carried aboard transports cannot be given any other orders and are therefore unable to shoot.

Units carried aboard a transport vehicle cannot be targeted directly by the enemy. They can however suffer damage and pin markers if the vehicle itself is fired upon. Any time a vehicle takes pin markers, each unit it carries suffers the same penalty. If a transport vehicle is destroyed, units on board suffer D6 hits and must immediately dismount and go/remain *down*.

DISMOUNTING FROM TRANSPORTS

Disembarking from a vehicle is easier than getting on board,

The poor bloody infantry – Tommy at war

On to Berlin! Soviet T34s and their riders.

and troops can do this even if the transport is moving slowly. Units can dismount from a vehicle that is either stationary or which makes an advance action that turn. Troops can dismount either before or after the vehicle itself takes its action.

If a vehicle makes a run action, any units it carries cannot dismount that turn except where they are forced to do so if the vehicle is assaulted, immobilised or destroyed, as noted below.

A unit dismounting from a vehicle must be ordered to *advance* or *run*. Make the action as normal, measuring the unit's move from the vehicle. Although a unit can use a *run* action to dismount from a vehicle, it is not allowed to use this move to make an assault upon an enemy in the same turn.

If a vehicle is immobilised by enemy fire any troops on board must dismount immediately regardless of any orders already given to either the vehicle or its occupants. Troops forced to dismount in this way are placed within a basic 6" move of their transport and then go/remain *down*.

If a transport vehicle is assaulted by enemy infantry, any troops on board will automatically dismount and fight close combat with the enemy. In this situation dismounting troops can do nothing else; they cannot also react by shooting at the assaulting unit, for example. The vehicle itself can react by shooting as normal, assuming the target lies within the firing arc of its weapons and starts the assault more than 6" away. Units must dismount if their vehicle is assaulted regardless of any orders already given to the vehicle or its occupants. The resulting close quarter combat is fought between the assaulting unit and one unit disembarking from the vehicle. Should the dismounting unit be destroyed then the transport risks being destroyed at the end of the turn, as it will most likely be an empty transport that is closer to enemy than to friends.

If a transport vehicle is destroyed then units on board take D6 hits and automatically dismount and go/remain *down* as described for immobilised transports.

VEHICLE SPECIAL RULES

The following special rules apply to a variety of vehicles as indicated in the Army Lists and in the Bolt Action supplements. More specific rules for individual vehicles are included in the vehicle descriptions in the Army Lists.

COMMAND VEHICLE

Command vehicles are equipped with two-way radios that enable them to direct squadrons of tanks, tank destroyers and other armoured vehicles into battle. The command vehicle adds a morale bonus of +1 to itself and to any other friendly armoured vehicle within 12".

TURRET REAR-MOUNTED MACHINE GUN

Some tanks have a machine gun mounted to specifically cover the back of their turret. When firing, first select a target for the tank main gun (or co-axial machine gun) and resolve it. Whichever arc the main gun has engaged an enemy, the rear-mounted machine gun can only shoot into the opposite arc. So, if the main gun fires forwards the rear-mounted gun must shoot behind, if the main gun fires to the right quarter the rear-mounted gun must shoot to the left quarter, and so on.

SLOW

Some heavily armoured vehicles, like early war British infantry tanks, were designed to simply keep pace with accompanying infantry. A vehicle that is designated as slow has a basic move rate of 6" when advancing and 12" at a run (double move).

US armoured jeep

RECCE

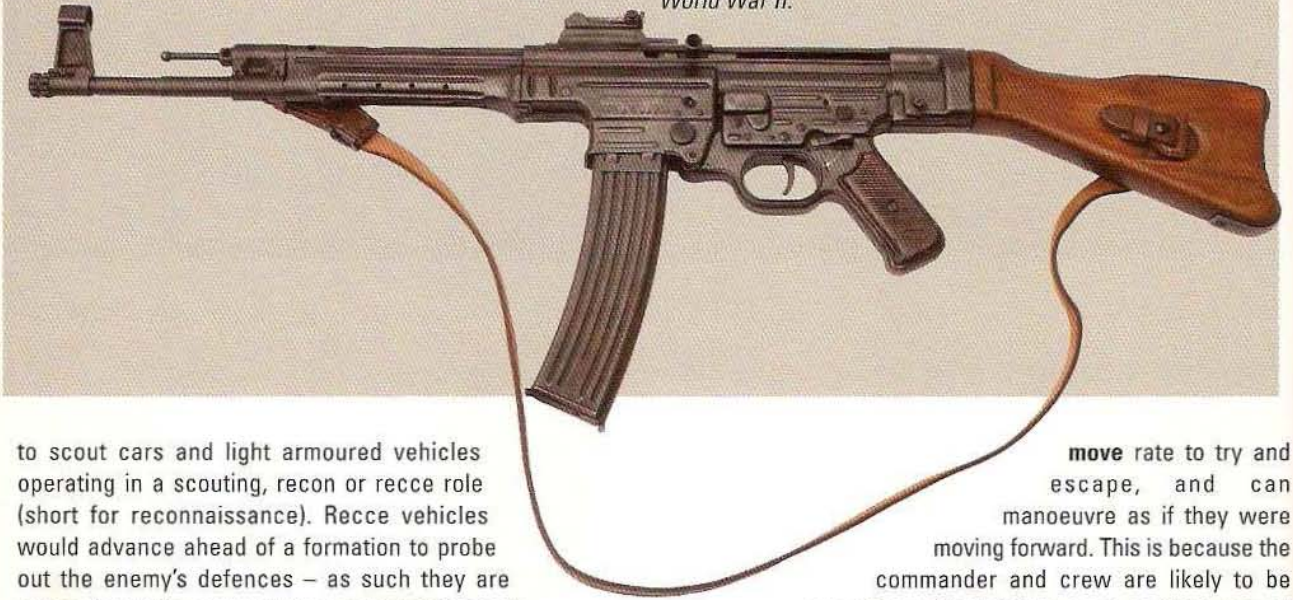
This special rule applies

TOP SECRET

FROM THE SUBMACHINE GUN TO THE ASSAULT RIFLE

The hand-held submachine gun had made its appearance in World War I where it proved especially effective at close quarter fighting in the trenches of the Western Front. On the whole these short-ranged automatic weapons were issued to vehicle and heavy weapon crews and officers, where a full sized rifle might prove an encumbrance. However, in the Soviet army whole companies were armed with submachine guns such as the PPD-40 and PPSh designs. There were quite a few different types of Russian submachine gun and they are all designated 'PP' for *Pistolet-Pulemyot*, Russian for 'machine pistol'. The Russians had learned the value of these rapid firing weapon during the Winter War against Finland where much of the fighting was a at close range in forests and towns. When hundreds of thousands of conscripts were drafted into the Red Army they were often given submachine guns because soldiers so-armed could fight effectively with the minimum of training.

During the close street to street fighting of the battle of Stalingrad the Germans also came to learn the value of these weapons. The German army already had the iconic MP38/MP40 submachine gun, often called a 'Schmeisser' by the Allies after the famous German weapon designer who invented the first German submachine guns in World War I. The MP40 – and once again 'MP' stands for 'machine pistol', *Maschinenpistole* in German – was carried by paratroops, but was otherwise restricted to officers, vehicle crews, and such-like. Inspired by the need for a weapon with a longer range than a conventional submachine gun but with semi and fully automatic fire capability, the Germans went on to develop the world's first modern assault rifle. This weapon is variously known as the MP 43, MP44 and StG44 – reflecting slight improvements in design of the same gun. StG stands for *Sturmgewehr* which means 'storm rifle' or 'assault rifle'. This weapon proved very successful in combat, allowing German troops to engage the enemy at longer ranges than was possible with a conventional submachine gun, to fight more effectively at close quarters than rifle armed troops, and to provide a degree of covering fire in the fashion of a heavier machine gun.



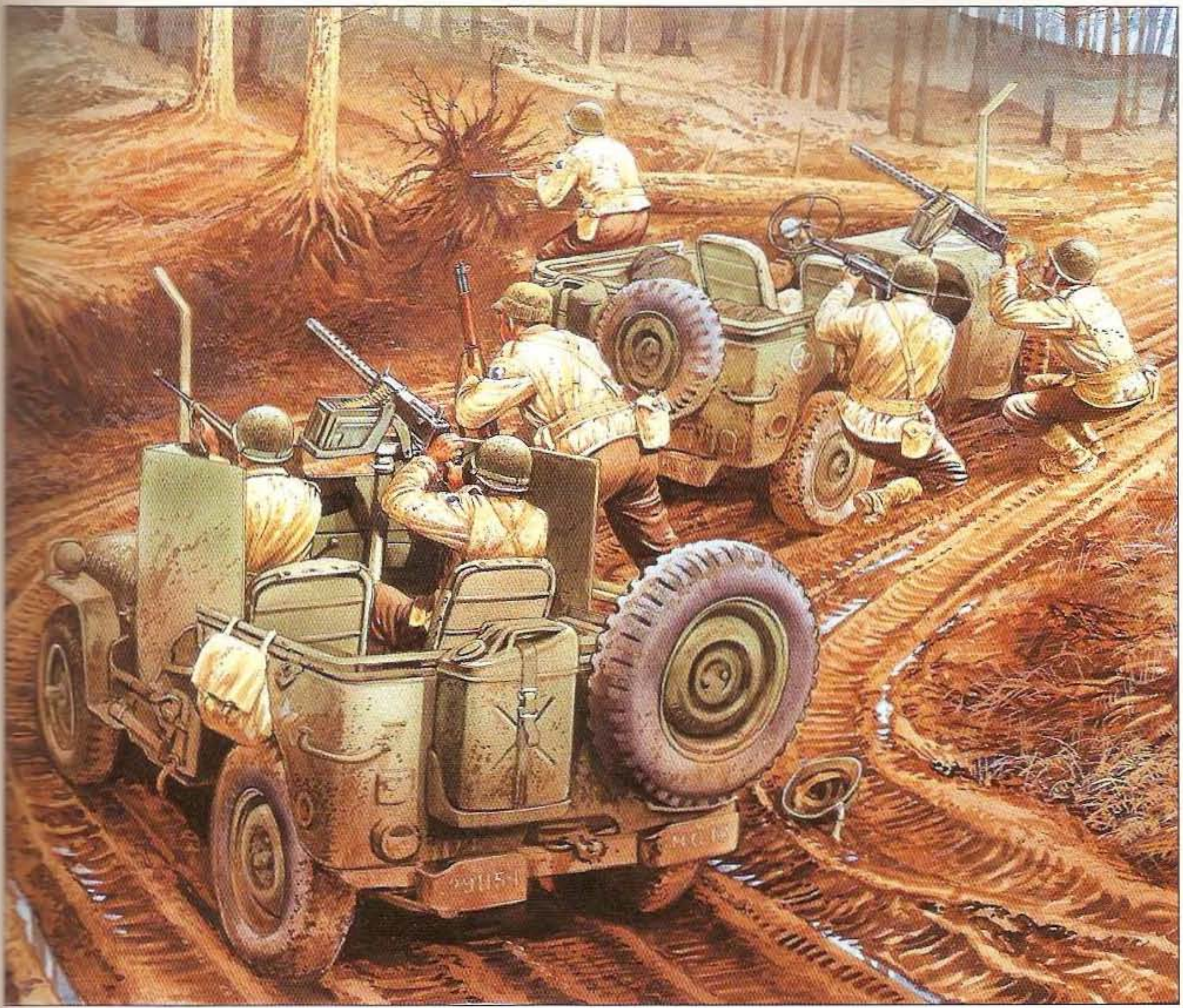
The German StG44 was the world's first modern assault rifle and the most deadly squad firearm carried during World War II.

to scout cars and light armoured vehicles operating in a scouting, recon or recce role (short for reconnaissance). Recce vehicles would advance ahead of a formation to probe out the enemy's defences – as such they are super-alert to the enemy presence and prepared to avoid trouble.

Recce vehicles are allowed to react to an enemy shooting or assaulting them by making an **escape** move. The player can choose to do this whether the vehicle has already taken an action that turn or not. No order is required to make an escape move. When the enemy declares he will shoot at or assault the vehicle the player can declare that he will try and escape. The crew have spotted the enemy in the nick of time and quickly slam the vehicle into reverse. The vehicle is allowed to make a reverse move. Recce vehicles can always reverse at **basic move** rate to try and escape, and can manoeuvre as if they were moving forward. This is because the commander and crew are likely to be operating with hatches open so they see all around them, and also because most recce vehicles are small and manoeuvrable to enable them to avoid trouble quickly.

Some recce vehicles are allowed to make a **run rate** escape move instead if the player prefers. This move must be directly backwards without manoeuvre. These are vehicles that are especially small and agile or which have dual-direction steering – i.e. they have a driving position facing both ways. These vehicles are indicated in the Army Lists.

Once the vehicle has made its escape move it comes to a halt and its order die is flipped to *down*, or a *down* order is



US reconnaissance patrol, by Peter Dennis © Osprey Publishing Ltd. Taken from Elite 156: World War II Combat Reconnaissance Tactics.

placed next to it if it has yet to take an action that turn. The enemy's shot or assault is then resolved as normal assuming the enemy can still see or reach the target. If the target has moved out of range or sight then the shot automatically misses or the assault fails.

Recce vehicles will also spot hidden enemy at longer ranges than other vehicles – as noted in the rules for hidden units – see *Hidden Set-up* p117.

AMPHIBIOUS

Amphibious vehicles are either designed to float or fitted with floatation devices that enable them to do so. An amphibious vehicle can move directly forward only over otherwise impassable deep water at **half speed** by means of an *advance* action, i.e. a vehicle that would normally advance at 12" can move over water at 6". A vehicle cannot make any other action whilst moving over water, cannot reverse, cannot turn, and will ignore all rules that otherwise oblige it to *reverse* or go *down*. A vehicle that is immobilised whilst in the water is sunk or abandoned and is therefore destroyed together with any occupants. Note that vehicles can shoot whilst afloat, but if equipped with floatation screens will not be able to do so with

Normandy log jam – a British column stuck in the bocage

any hull-mounted weapons (as specified in the relevant Bolt Action supplements).

OPEN-TOPPED

Some armoured vehicles are open-topped – meaning they have open turrets or open fighting compartments as opposed to fully enclosed vehicles such as tanks. Typical open-topped armoured vehicles include half-tracks, most self-propelled artillery pieces, many tank destroyers and some armoured cars. Open-topped armoured vehicles are more vulnerable to HE fire than equivalent fully enclosed vehicles, and are susceptible to close quarter attack by enemy infantry tossing grenades inside an exposed cab. Rules governing open-topped armoured vehicles are included throughout the rules and are repeated here for ease of reference.

Open-topped armoured vehicles are pinned by hits from small arms in the same way as soft-skins and infantry.

If assaulted by infantry open-topped armoured vehicles are **destroyed** automatically if the vehicle is damaged, in the same was as for soft-skins.

If hit by indirect fire then add +1 to the damage result roll to represent the effect of a shot falling into an open-topped vehicle. Note that all hits upon the upper surface of armoured vehicles count +1 penetration regardless of whether the target is open or not – so open-topped armoured vehicles suffer a double penalty: +1 penetration and +1 damage result.

British jeep

Built-up areas afford plenty of cover for infantry to shelter within and set ambushes. Buildings can become strong points in any defence, whilst even the most heavily armoured tank can fall prey to infantry using short-ranged anti-tank weapons from concealed positions.

The rules we have already described for difficult terrain (p27) will serve to represent ruinous buildings and rubble. The following rules cover buildings that are substantially intact, as well as defensive structures such as blockhouses and pillboxes. These kinds of structures pose an interesting conundrum to the wargamer. Do we want our building models to be hollow, with roofs and floors that can be removed, so as to allow us to place models inside? Or are we going to have solid buildings that serve to set the scene, but which can only be occupied in a nominal way?

Players can agree that models cannot enter buildings at all if they prefer. Perhaps the buildings are burning as a result of preliminary shelling or bombardment. However, although practical, this is not a very satisfactory solution, as we would like to picture our soldiers shooting from windows and dashing from door to door.

ENTERING BUILDINGS

Only infantry units are permitted to enter buildings during the game. In order to enter a building, an infantry unit must be ordered to *run*, all the models in the unit must get to within 1" of the building, and at least one model must reach an opening such as a door or window. The entire unit is then removed from the table. Note that this is comparable to the procedure for a unit mounting into a transport vehicle.

If a building has more than one floor, units will enter on the ground floor. For the sake of simplicity, we'll assume that most buildings are large enough for a single unit to occupy each floor. This would be about correct for a house, small office

German Heer burst into a courtyard

Fallschirmjäger fighting from house to house...

building, or similar structure. Floors that are occupied by enemy troops cannot be moved into except by means of an assault as described later.

Note that infantry and artillery units can be set up inside a building at the start of the game if the building is at least partially inside their side's set-up zone. Artillery units set up in this way will be unable to move for the duration of the game.

LEAVING BUILDINGS

The rule for leaving a building is comparable to dismounting from a transport vehicle and is worked out in a similar way. The unit must be on the ground floor and must be ordered to *advance* or *run*. Make the move as normal, measuring the unit's move from any opening on the ground floor.

A unit is allowed to make an assault move from within a building, either against an enemy on another floor, into an adjoining building where they are connected, or by leaping out from the building and attacking enemy outside. An enemy who is outside a building can react by firing at the assaulting unit in the usual way, but calculates fire once the assaulting troops have left the building, i.e. without the benefit of cover. Enemies on a different floor of the same building or in an adjoining building cannot react by firing in this way – see the rules for assaulting buildings on p104.

ORDERS TO TROOPS INSIDE BUILDINGS

Units inside buildings must be given orders in the usual way. An *advance* order can be used to either leave the building, to move from one floor to another floor, or to move into an adjoining building and in all cases to shoot as well, as is usual for advance orders.

A *run* order can be used to either leave the building, to move up or down two floors, to move up to two adjoining buildings, or to make an assault into an adjoining floor or building. A running unit cannot also shoot – as is the usual rule.

LARGE BUILDINGS

Sometimes players may want to represent a larger building: a railway station, a factory or workshop, a school, town hall or other substantial public building of some kind. In these cases it is best to treat a large building as a number of roughly house-sized adjoining buildings all connected together. It is impossible to cover every kind of eventuality – but it is best that house-sized portions are no bigger than about 8" by 8", and preferable about 6" x 6", as this allows infantry to move through at a reasonable pace. These can be thought of as

The ubiquitous British Vickers machine gun keeps Jerry's head down

individual building 'sections'. If a single building section has dimensions greater than a standard infantry move, running troops are not allowed to move through two sections at once, as that would obviously enable them to move unfeasibly quickly.

The rules given here assume buildings and building sections of about house size, so when considering larger buildings bear in mind that they are treated as multiple connected buildings and not just one.

SHOOTING FROM BUILDINGS

Units inside buildings may shoot from any visible opening including windows and doors. Measure range and calculate line of sight from these openings. We assume that up to two men can fire out of any domestic sized window or door. A unit in a building can divide its fire against different targets on different sides of a building, but all fire from each side of a building must be aimed at the same target.

FIXED WEAPONS

In the case of *fixed* weapons that have a limited arc of fire, the player must specify the opening where they are deployed; usually this will be a window or door. They will fire only out of the designated opening until the unit makes an *advance* or *run* action, when they can be redeployed to another opening if desired.

PLUNGING FIRE

If troops that occupy an upper floor fire against an armoured target within 12", any heavy weapons hits scored will strike the target's top armour and therefore score the extra +1 penetration bonus. Note that this doesn't apply twice to mortars or howitzers shooting indirect as they already receive this bonus.

SHOOTING AT BUILDINGS

Units armed with small arms can shoot at enemy inside buildings if they have a line of fire to any opening on the floor occupied by the target. Range is measured to visible openings.

Aside from flamethrowers, heavy weapons don't need to see an opening to shoot, but just need to be able to draw a line of fire to any wall of the corresponding floor – big shells go through most walls.

Burn them out! A Waffen-SS flamethrower in action...

Roll to hit the target as normal. Units inside buildings count as behind hard cover (–2 to hit) and can react by going down in the usual way when shot at.

EXTRA PROTECTION

Aside from HE fire as noted below, a damage roll of 6+ is always needed to score damage against an enemy infantry or artillery unit in a building, regardless of the quality of the unit. The die roll is modified by the penetration value of the weapon as normal. Note that this is the same as for artillery equipped with gun shields.

SHOOTING HE WEAPONS AGAINST BUILDINGS

If a weapon fires an indirect HE round and scores a hit against a unit inside a building, this means the shell has managed to find – or make – an opening. Roll a die. On the roll of a 4, 5 or 6 the shell explodes immediately hitting any target on the roof and/or the uppermost floor of the building. On the roll of 1, 2 or 3 the shell has plummeted straight through the topmost floor, so roll again to see if it explodes on the floor below. On a roll of 4, 5 or 6 the shell explodes on the floor below, and will hit any target on that floor. Once again, on a roll of 1, 2, or 3 the shell plummets down to the next level. Keep on rolling in this way until the shell explodes or reaches the ground floor, where it will explode automatically.

HE shots fired over open sights – i.e. directly at the target – can be aimed at any viable target in the same way as already described for other weapons.

If an HE shell strikes troops that are either inside a building or on rooftops, damage is scored as if the target were in the open. The extra protection rule given above does not apply. Even the crews of guns fitted with a gun shield are hit as if in the open – the gun shield having no effect.

In addition, if a weapon with HE value of 2D6 or greater hits a unit inside a building, the explosion might bring the entire house down about their heads. In this case, roll to determine how many hits are inflicted as usual. If the total number of hits scored is twelve or more then the building is blown to rubble and all infantry and artillery units inside it are destroyed. Remove the building and replace it with a ruinous equivalent or an area of rubble and debris.

FLAMETHROWERS AGAINST BUILDINGS

A flamethrower can only be used against troops inside buildings where there is a window, open door, or some other gap to shoot through. Flamethrowers score hits automatically without making any 'to hit' roll and are therefore devastating when used against troops within buildings.

The *extra protection* rule described above does **not** apply to flamethrowers. As with HE shots, troops are hit as if in the open, and gun crews derive no protection from their gun shield.

If a flamethrower is used against troops in a building then the building catches fire on D6 roll of a 4, 5 or 6 and is considered impassable from then on. Any surviving infantry units inside a burning building will immediately abandon it in the same way as units disembarking from a vehicle that has been immobilised or destroyed (see p93–94). Artillery units inside a burning building are automatically destroyed.

ASSAULTING BUILDINGS

Infantry units outside a building can assault enemy units occupying the ground floor of a building. Measure the move to any opening on the ground floor. Resolve the assault sequence as normal, except that the assaulting models are moved into contact with the building, with at least one model in contact with an opening. The rest is exactly the same as an assault across a defended obstacle, with the combat fought simultaneously by both sides. See p60.

Infantry units inside a building can assault units on a different floor immediately above or below, or on the same floor of an adjoining connected building section. This is always considered to be a surprise charge (i.e. from within 6") so no reaction shooting is allowed. Otherwise it is worked out the same way as described above.

TANKS ASSAULTING BUILDINGS

A heavy or super-heavy tank can attempt to drive into a wooden or brick-built building in the same way as already described for ramming other tanks. This is treated as an assault and the building has a total damage value that is established randomly when the assault is made as follows.

Wooden building	2D6
Brick building	3D6

Tanks are not allowed to attempt to assault fortifications such as pillboxes, blockhouses, tank traps, bunkers or any other structures that are equally solid or substantial. See Bunkers below. Note that the damage values given for buildings are meant to reflect fairly substantial buildings – it is not intended that a tank should be troubled by a garden shed, kennel or sentry box.

A heavy tank would therefore roll its damage value (10+) + a D6 (D6+10) whilst a super-heavy tank would roll (11+) + a D6 (D6+11). The opposing player rolls for the building.

If the building scores higher resolve damage against the tank as described for a vehicle ram. If the building is a wooden shack only superficial damage can be caused. The tank model is placed in front of the building having failed to demolish it.

If building and tank score equally then resolve superficial damage against the vehicle as for a vehicle ram and the building is destroyed as described below.

If the tank scores highest the building collapses in the same way as described for an HE shell. The building is destroyed and the model representing it replaced with an area of rubble. The tank is placed within the rubbled area and comes to a halt. Show this by turning the vehicle's order die to down.

Finally, any tank that survives driving into a building takes a further pin marker in the same way as tanks surviving a collision.

ARTILLERY IN BUILDINGS

Artillery units cannot enter buildings during a battle, but can be placed in buildings during deployment. We assume their position has been prepared in advance. If so, the player must pick an opening for the gun to fire from. This cannot be changed during the game. An artillery unit placed in this manner cannot move and cannot therefore be ordered to run or advance during the game – its position and its arc of fire are both fixed.

BUNKERS

The following rules cover bunkers, pillboxes and all other reinforced buildings specifically designed to protect soldiers from enemy fire. Bunkers follow the rules given for buildings with these exceptions:

Bunkers can only be accessed through doors and not through firing slits. Similarly, models can only fire from/towards firing slits and not through doors or through solid walls.

It's extremely difficult to hit troops inside bunkers through the narrow slits in the reinforced walls; therefore when shooting against them, the cover modifier, which normally is –2 is increased to a whopping –4. This makes flamethrowers the perfect tools against bunkers because hits are automatic (see p51)

Indirect fire weapons (at least those of the calibre we cover in our games) are useless against bunkers with thick reinforced concrete roofs designed to be shellproof. Indirect fire weapons cannot shoot with any effect against bunkers or their occupants.

Tanks cannot assault bunkers no matter how heavy they are!

This section describes how to go about assembling forces, setting up the battlefield, choosing a scenario, deploying for battle and beginning a game.

DECIDING THE SIZE OF THE GAME

Before the battle can begin it is necessary that the players agree how big a game they are going to play. Begin by agreeing the number of **requisition points** available for the game. Requisition points are a measure of how powerful a force is; the more points the bigger and more powerful the army. For example, the players might agree to play a '1,000 points game' meaning that each side fields up to a maximum of 1,000 requisition points. The Bolt Action rulebook contains basic Army Lists for four of the major powers of World War II: Britain and Commonwealth, Germany, the Soviet Union and the United States of America. Supplementary books add to this choice, expanding the basic four lists themselves and providing new lists for the armies of Japan, Italy, France, Poland and many other nations that fought in this global conflict.

For practical purposes we recommend 1,000 requisition points per side for a *standard* sized game. Later on, the rules for different scenarios take it as read that games are being fought to this standard size. Of course, that does not mean games cannot be played with more or fewer points, only that some adjustment may be required when calculating which side has won as noted later.

ASSEMBLING THE FORCES

Each player selects models from his chosen list to make up a force for the game. Every model chosen has a requisition points value. For example a regular rifleman costs ten points, while a heavy tank typically costs several hundred points. Each player selects units from his list, adding together the cost in requisition points, up to the agreed total. Don't worry if it is not possible to spend every single point – just make sure the force's total value does not exceed the agreed value. See p121 for more about how to choose forces from the lists.

The brave Poles – fighting on two fronts.

THE GAMING TABLE

The more space you have to fight your battle the better, whether you have a dedicated tabletop for gaming, whether you press the kitchen or dining table into service, or even if you are forced to make do with the floor or patio. Ideally, the gaming surface should be at least four feet wide and six feet long, but if you are obliged to use a smaller area don't worry. If you really have only a small space – say three feet wide or less – then we'd suggest either reducing all distances by a proportion, or deploying the opposing sides from the table edges as described for a Maximum Attrition game (see p110). Either way, it is usual to play from the opposing long edges – each player sitting behind his own table edge facing his opponent.

PREPARING THE BATTLEFIELD

It is entirely up to the players what kind of a scene they wish to represent on the battlefield. For example, the battlefield could be a densely packed urban area, an open rural landscape, a mix of marshes and woodlands, or a rolling sand desert bereft of cover. On the whole a better game will be had where there is a good quantity of terrain on the table, with hedgerows, wreckage or trenches for troops to shelter behind; hills and escarpments to conceal the movement of vehicles; and woodlands, houses, or tumbled ruins where troops can lie in ambush. If you don't have much terrain to block line of sight and reduce movement, the poor old infantry will find themselves cut down by long-ranged weapons and rapidly moving tanks. Of course, if the tabletop is very crowded it may become virtually impassable for armoured vehicles. Clearly a good mix is what is needed. We would suggest the battlefield includes at least four sizeable terrain pieces such as buildings, thick woods or a rocky escarpment, large enough to block line of sight over most of the table. In addition, we recommend the battlefield includes other, lower terrain features to provide plenty of cover for infantry, for example hedges, dry-stone walls, sparse woodland and individual trees, craters, areas of rubble, wreckage and similar rough ground.

When the players set up the scene of battle it is important to try and make sure no great advantage is conferred to either side. Many will take their inspiration from actual battle sites, or perhaps from war movies or TV, when recreating scenes and landscapes on the tabletop.

British Churchill Mk VII

THE BATTLE SCENARIOS

Once the players have prepared their armies and set up the terrain, the next thing to do is decide what kind of battle is to be fought. This is the story behind the battle, the events that have brought our opposing forces into conflict. Perhaps one side is trying to break out from a pincer movement that threatens to cut off and surround it, maybe one side is attempting a reconnaissance in force to expose enemy positions, and maybe both sides are racing towards some common objective that they will fight over. This backstory to the game is the **scenario**, and players are at liberty to invent scenarios for themselves, or to adapt historical encounters, or to use any of the scenarios described below. These scenarios have been worked out to provide a fair but varied challenge to both sides, and they don't require any particular scenery or table set-up – they can be played with any forces or terrain.

Players can simply pick a scenario to play, or roll a die at the start of the game and consult the chart as follows.

BATTLE SCENARIOS CHART

DIE ROLL	SCENARIO
1	Envelopment
2	Maximum Attrition
3	Point Defence
4	Hold Until Relieved
5	Top Secret
6	Demolition

SCENARIO 1: ENVELOPMENT

An enemy pocket of resistance is to be engaged and pinned in place by a portion of your force, while the rest will make their way around the enemy position to surround them and isolate them from their supply chain.

SET-UP

Both players roll a die. The highest scorer decides whether to be the attacker or the defender.

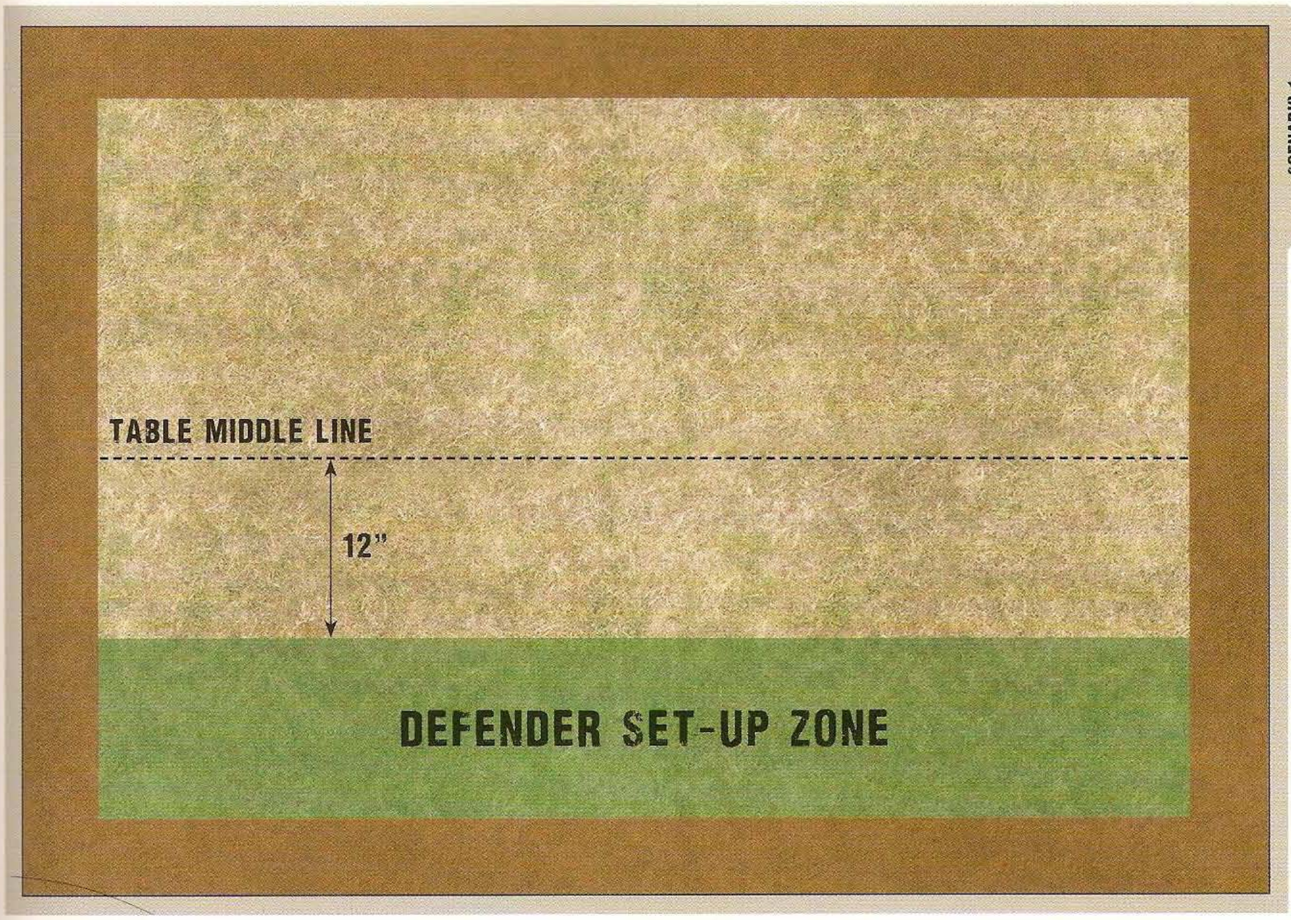
The defender picks a side of the table and sets up at least half of his units in his set-up area (see opposite). These units can use the **hidden set-up** rules (see Hidden Set-up p117). Units that are not set up to start with are left in **reserve** (see Reserves p119).

The attacker's units are not set up on the table at the start of the game. The attacker must nominate at least half of his force to form his first wave. This can be his entire army if he wishes. Any units not included in the first wave are left in reserve.

OBJECTIVE

The attacker must try to move as many of his units as he can into the defender's set-up zone or off the opposing side's table edge. The defender must try and stop him. Note that in this scenario, attacking units are allowed to deliberately move off the table from the defender's table edge to reach their objective.

The Red Devils take position



PREPARATORY BOMBARDMENT

The attacker rolls a die: on a 2+, a **preparatory bombardment** strikes the enemy positions (see Preparatory Bombardment p118). On a result of 1, the barrage fails to materialise, but you have your orders and the attack must go ahead as planned.

FIRST TURN

The battle begins. During turn 1, the attacker must move his entire first wave onto the table. These units can enter the table from any point on the attacker's table edge, and must be given either a *run* or *advance* order. Note that no order test is required to move units onto the table as part of the first wave.

GAME DURATION

Keep a count of how many turns have elapsed as the game is played. At the end of turn 6, roll a die. On a result of 1, 2 or 3 the game ends, on a roll of 4, 5 or 6 play one further turn.

VICTORY!

At the end of the game calculate which side has won by adding up **victory points** as follows. If one side scores at least 2 more victory points than the other then that side has won a clear victory. Otherwise the result is deemed too close to call and honours are shared – a draw!

The attacker scores 1 victory point for every enemy unit destroyed. He also scores 2 victory points for each of his own units that is inside the defender's set-up area (even if only partially), and 3 victory points for each of his own units that has moved off the enemy table edge before the end of the game.

The defender scores 2 victory points for every enemy unit destroyed.

SCENARIO 1: ENVELOPMENT

An enemy pocket of resistance is to be engaged and pinned in place by a portion of your force, while the rest will make their way around the enemy position to surround them and isolate them from their supply chain.

SET-UP

Both players roll a die. The highest scorer decides whether to be the attacker or the defender.

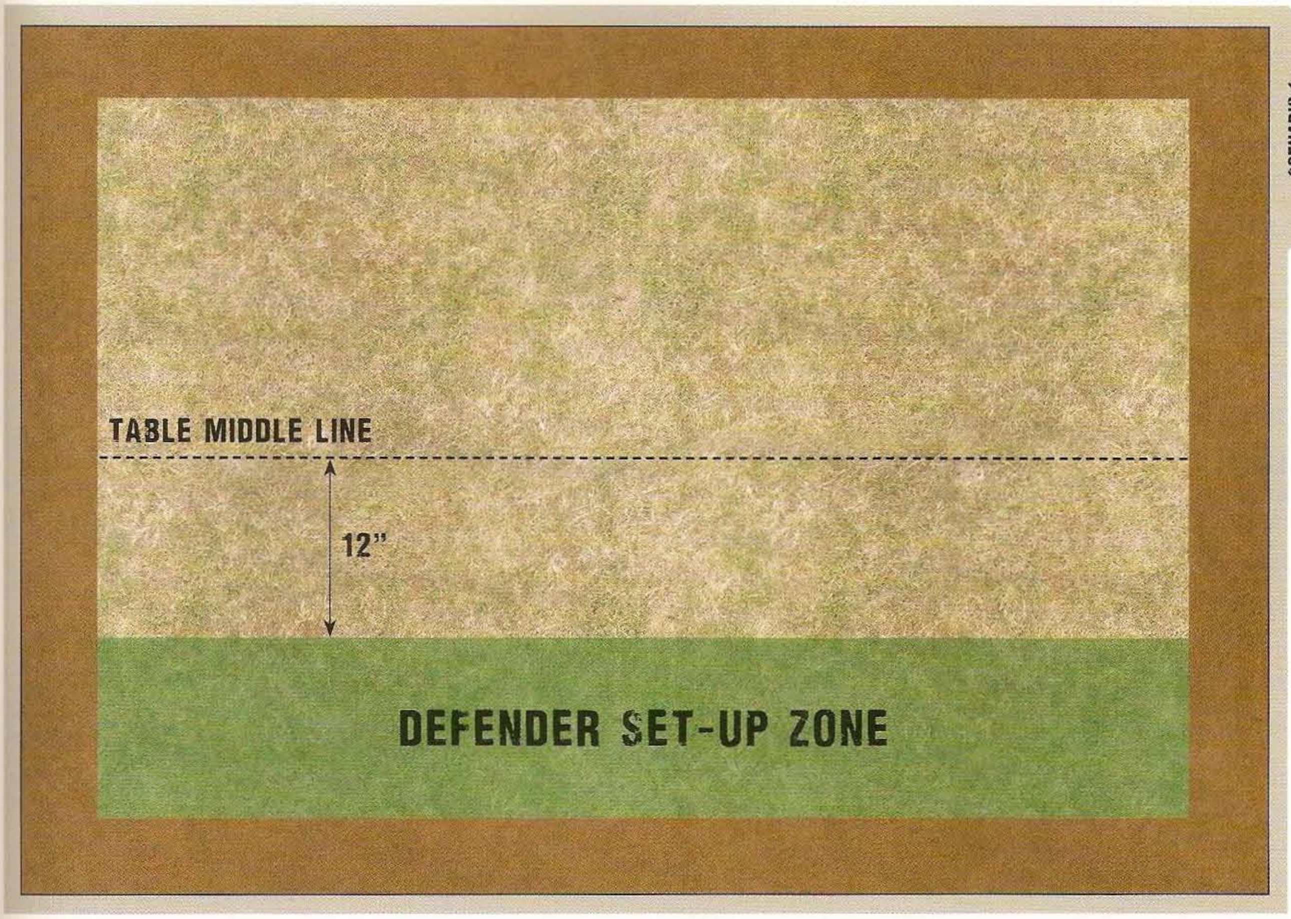
The defender picks a side of the table and sets up at least half of his units in his set-up area (see opposite). These units can use the **hidden set-up** rules (see Hidden Set-up p117). Units that are not set up to start with are left in **reserve** (see Reserves p119).

The attacker's units are not set up on the table at the start of the game. The attacker must nominate at least half of his force to form his first wave. This can be his entire army if he wishes. Any units not included in the first wave are left in reserve.

OBJECTIVE

The attacker must try to move as many of his units as he can into the defender's set-up zone or off the opposing side's table edge. The defender must try and stop him. Note that in this scenario, attacking units are allowed to deliberately move off the table from the defender's table edge to reach their objective.

The Red Devils take position



PREPARATORY BOMBARDMENT

The attacker rolls a die: on a 2+, a **preparatory bombardment** strikes the enemy positions (see Preparatory Bombardment p118). On a result of 1, the barrage fails to materialise, but you have your orders and the attack must go ahead as planned.

FIRST TURN

The battle begins. During turn 1, the attacker must move his entire first wave onto the table. These units can enter the table from any point on the attacker's table edge, and must be given either a *run* or *advance* order. Note that no order test is required to move units onto the table as part of the first wave.

GAME DURATION

Keep a count of how many turns have elapsed as the game is played. At the end of turn 6, roll a die. On a result of 1, 2 or 3 the game ends, on a roll of 4, 5 or 6 play one further turn.

VICTORY!

At the end of the game calculate which side has won by adding up **victory points** as follows. If one side scores at least 2 more victory points than the other then that side has won a clear victory. Otherwise the result is deemed too close to call and honours are shared – a draw!

The attacker scores 1 victory point for every enemy unit destroyed. He also scores 2 victory points for each of his own units that is inside the defender's set-up area (even if only partially), and 3 victory points for each of his own units that has moved off the enemy table edge before the end of the game.

The defender scores 2 victory points for every enemy unit destroyed.

Vorwärts! Aggressive Waffen-SS counterattack

SCENARIO 2: MAXIMUM ATTRITION

Your orders are brutally simple – locate and engage the enemy forces, and inflict maximum damage.

SET-UP

Both players roll a die. The highest scorer picks a table side.

No units are set up on the table at the start of the game. Both sides must nominate at least half of their force to form their first wave. This can be the entire army if desired. Any units not included in the first wave are left in reserve (see Reserves p119).

OBJECTIVE

The objective is simple – both sides must attempt to destroy the other whilst preserving their own forces.

FIRST TURN

The battle begins. During turn 1 both players must bring their first wave onto the table. These units can enter the table from any point on their side's table edge, and must be given either a *run* or *advance* order. Note that no order test is required to move units onto the table as part of the first wave.

GAME DURATION

Keep a count of how many turns have elapsed as the game is played. At the end of turn 6, roll a die. On a result of 1, 2 or 3 the game ends, on a roll of 4, 5 or 6 play one further turn.

VICTORY!

At the end of the game calculate which side has won by adding up **victory points** as follows. If one side scores at least 2 more victory points than the other then that side has won a clear victory. Otherwise the result is deemed too close to call and honours are shared – a draw!

Players score 1 victory point for every enemy unit destroyed.

SCENARIO 3: POINT DEFENCE

The enemy positions are strategically vital for the continuation of the campaign and must be seized at all costs.

SET-UP

Both players roll a die. The highest scorer decides whether to be the attacker or the defender The defender picks a side of the table and sets up at least half of his units in his set-up area (see opposite). These units can use the **hidden set-up** rules (see Hidden Set-up p117). Units that are not set-up to start with are left in **reserve** (see Reserves p119).

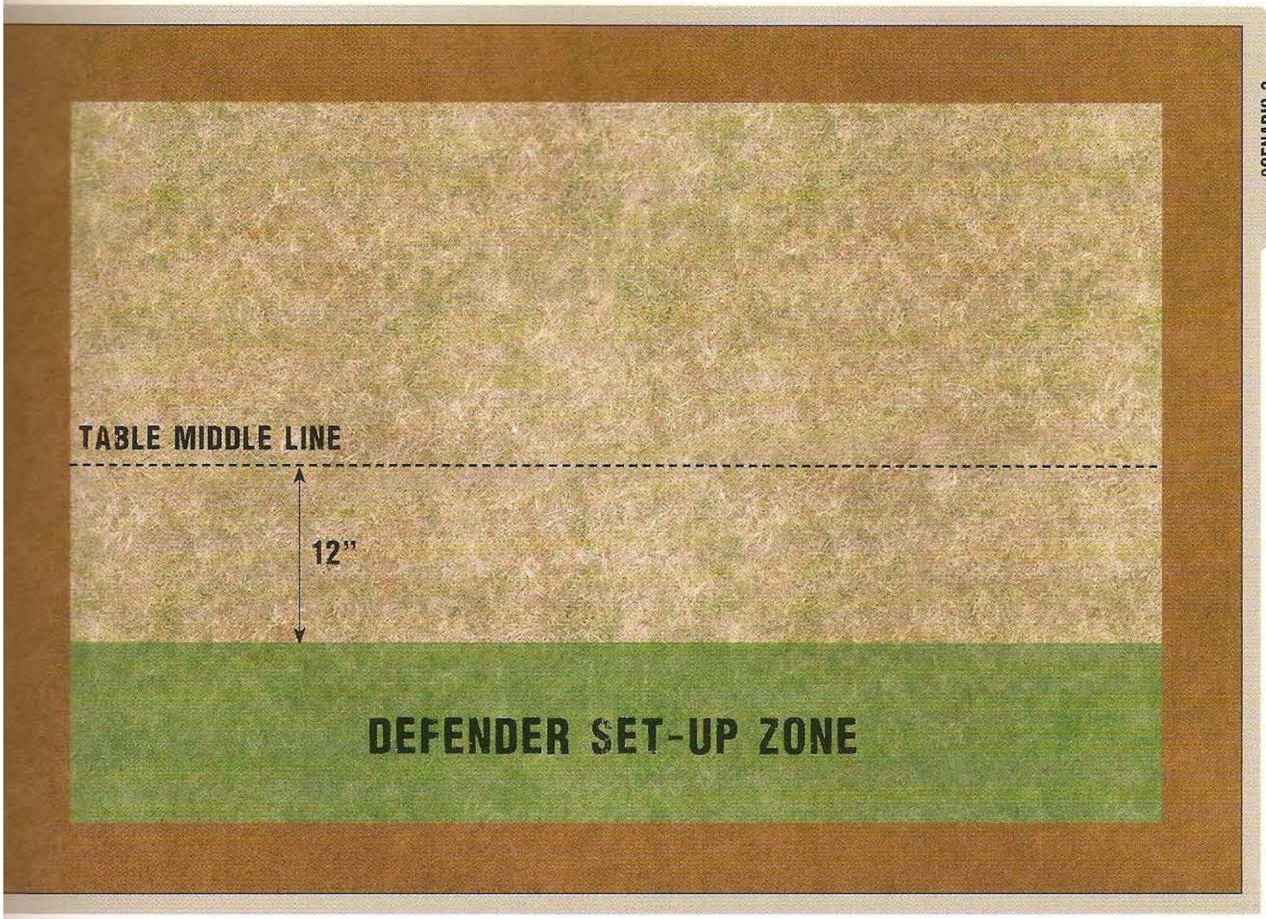
As he sets up his force, the defender must nominate three separate **objectives** in his set-up zone. All objectives must be at least 6" from the defender's table edge. In addition, all the objectives must be at least 24" from each other. These objectives could be tactically important positions such as a building or hilltop, or supplies such as an ammo dump or fuel reserve, or maybe a command post, a vehicle repair shop, or an emplacement for long-range artillery or rocket launchers. Objectives can be simple markers or tokens if the players prefer, or can be represented by scenic pieces along the lines described. The important thing is that both players clearly identify the three objectives before the battle begins.

The attacker's units are not set up on the table at the start of the game. The attacker must nominate at least half of his force to form his first wave. This can be his entire army if he wishes. Any units not included in the first wave are left in reserve.

OBJECTIVE

The attacker must try and capture the three objectives – the defender must try and stop him.

Chindits emerge from the Burmese jungle...



PARATORY BOMBARDMENT

attacker rolls a die: on a 2+, a **preparatory bombardment** es the enemy positions (see Preparatory Bombardment). On a result of 1, the barrage fails to materialise, but you your orders and the attack must go ahead as planned.

T TURN

battle begins. During turn 1, the attacker must move his wave onto the table. These units can enter the table from point on the attacker's table edge, and must be given r a *run* or *advance* order. Note that no order test is ired to move units onto the table as part of the first wave.

E DURATION

p a count of how many turns have elapsed as the game is ed. At the end of turn 6, roll a die. On a result of 1, 2 or 3 the e ends, on a roll of 4, 5 or 6 play one further turn.

VICTORY!

At the end of the game calculate which side has won as follows.

If the attacker holds two or three objectives the attacker wins. If the attacker holds one objective the game is a draw. If the attacker holds no objectives then the defender wins.

All objectives are held by the defender at the start of the game regardless of where his troops are positioned. If an objective changes hands during the game then it remains under the control of that side until it is taken back.

To capture an objective there must be a model from one of your infantry or artillery units within 3" of the objective at the end of the turn, and there must be no enemy infantry or field artillery models within 3" of it.

SCENARIO 4: HOLD UNTIL RELIEVED

Your force has been sent on a very dangerous mission to capture a key strategic objective. Your men have reached the immediate vicinity of the objective during the night and at first light you'll attempt to seize the position. You will then dig in for the inevitable counter-attacks and hold until relieved.

SET-UP

The objective could be a bridge, an ammo or fuel dump, an airstrip, a command bunker, a V2 launch site, or anything comparable. First set up the objective in the centre of the table. Ideally, this should be no larger than 12" x 12". You can place the objective up to 12" to the left or right of the exact centre of the table, but make sure that it is equidistant from the opposing players' starting edges.

Both players roll a die. The highest scorer decides whether to be the attacker or the defender.

The defender picks a side of the table and sets up one infantry squad and one other unit (this unit can be anything with a damage value of 7+ or less) within 6" of the objective. Then he nominates half of the remaining units (rounding down) to form his first wave. Any units not included in the first wave are left in reserve (see Reserves p119)

The attacker can then set up any and all of his infantry anywhere on the table so long as they are more than 18" from the objective or either enemy unit that is already deployed. These units can use the **hidden set-up** rules (see Hidden Set-up p117). All other units are left in **reserve** (see Reserves p119).

OBJECTIVE

The aim is to control the objective at the end of the game. To do so there must be a model from one of your infantry or artillery units within 3" of the objective and there must be no enemy infantry or artillery models within 3" of the objective.

FIRST TURN

The battle begins. During turn 1 the defender must bring his first wave onto the table. These units can enter the table from any point on the defender's table edge, and must be given either a *run* or *advance* order. Note that no order test is required to move units onto the table as part of the first wave.

GAME DURATION

Keep a count of how many turns have elapsed as the game is played. At the end of turn 6, roll a die. On a result of 1, 2 or 3 the game ends, on a roll of 4, 5 or 6 play one further turn.

VICTORY!

If one side controls the objective at the end of the game it is the winner. If neither side can claim control of the objective the game is a draw.

A Tetrarch airlanding tank supports the fierce Polish airborne

SCENARIO 5: TOP SECRET

Enemy fighters have shot down one of our light transport aircraft. Your men must locate the crash site and retrieve the briefcase of the high-ranking staff officer who was on board. This briefcase contains secret documents and it is imperative that you get to it before the enemy. Whatever happens, these documents must not fall into enemy hands.

SET-UP

First set up the objective marker in the centre of the table. This could be a wrecked light aircraft or perhaps a fallen parachute, or any suitable officer model or simply a marker or token if preferred. You can place the objective up to 12" to the left or right of the exact centre of the table, but make sure that it is equidistant from the opposing players' table edge.

Both players roll a die. The highest scorer picks a side of the table.

No units are set up on the table at the start of the game. All units on both sides are left in **reserve** (see Reserves p119)

OBJECTIVE

Both sides must seize the objective marker and carry it off their own edge of the table. See below for rules about transporting the objective marker.

FIRST TURN

During turn 1, you can attempt to bring in your reserves as if it was turn 2 as described in the rules for reserves. Play then continues as normal.

GAME DURATION

Keep a count of how many turns have elapsed as the game is played. At the end of turn 6, roll a die. On a result of 1, 2 or 3 the game ends, on a roll of 4, 5 or 6 play one further turn.

VICTORY!

The side that carries the objective marker off the table before the end of the game wins. Otherwise the result is a draw.

To seize the marker, an infantry unit must advance or run and end its move with at least one model touching the objective. From the following turn the unit will carry the marker as it moves. Always leave the marker in contact with one of the models in the unit. If that unit moves as close as it is permitted to a friendly infantry unit, it can immediately transfer the marker to any of the models in the other unit.

If the model carrying the marker is killed, the marker can be transferred to any other model in the unit. If the entire unit is killed/removed from play, the marker is left on the ground for someone else to pick up later.

If the unit carrying the marker is destroyed in an assault, the enemy unit that destroyed it can immediately claim the marker and place it next to one of their models before they make their regroup move.

SCENARIO 6: DEMOLITION

Our scout planes have pinpointed the enemy company HQ. Your objective is to reach the enemy position and destroy it with the explosives your men have been issued with. Strong enemy resistance is to be expected, so you must attack in force, but do leave a portion of your force behind in order to defend our own artillery emplacements.

SET-UP

Both players roll a die. The highest scorer picks a side of the table and places his base in his set-up zone at least 6" from the table edge. The other player then places his base in his set up zone at least 6" from his table edge, in the same way.

Ideally these 'bases' are represented by a model command post (tent, dug-out, command vehicle), but could be anything that looks like a tactically important position such as a building or hilltop, an ammunition or fuel dump, a radio or radar mast, an artillery or missile battery, etc. A base can simply be a marker if you wish – nothing more than a token – it's entirely up to the players. The important thing is that both players clearly identify their bases at the start of the game.

The first player deploys half of the units in his army (rounding down) in his deployment zone.

These units can use the **hidden set-up** rules (see Hidden Set-up page 117). All other units are left in **reserve** (see Reserves page 119).

Once the first player has deployed as described his opponent does the same with his own force.

OBJECTIVE

Both sides must destroy the enemy base. A base is destroyed if, at the end of any turn, any enemy unit is touching the base other than an empty transport vehicle. Empty transports cannot be used to destroy a base although a transport vehicle carrying troops can.

FIRST TURN

The battle begins. Note there is no first wave in this scenario. All units not held in reserve are deployed at the start of the game.

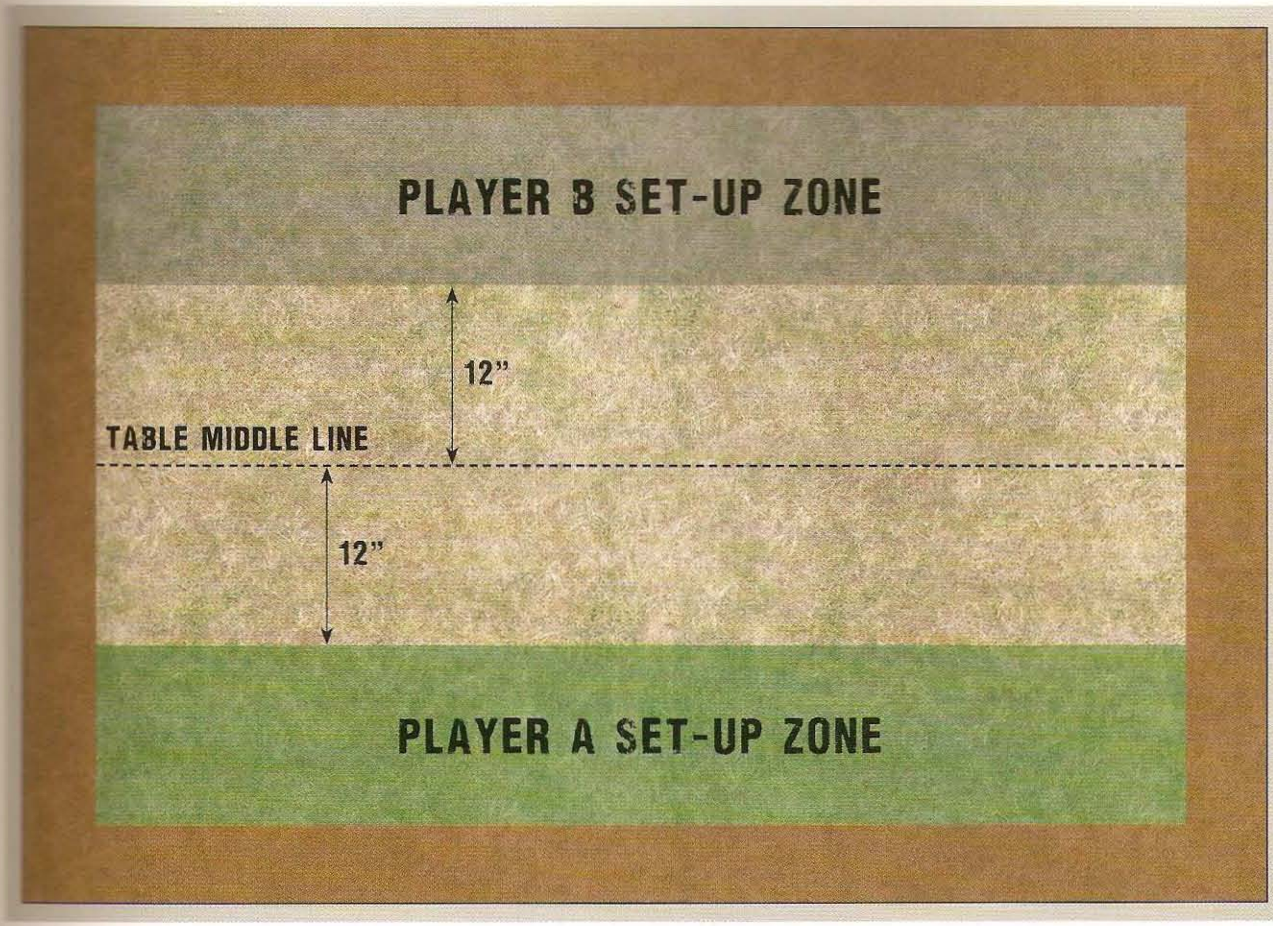
GAME DURATION

Keep a count of how many turns have elapsed as the game is played. At the end of turn 6, roll a die. On a result of 1, 2 or 3 the game ends, on a roll of 4, 5 or 6 play one further turn.

VICTORY!

If one player has destroyed his opponent's base while his own still stands then that player is the winner. Otherwise the game is a draw.

The French counter-attack



SCENARIO RULES

The following rules are common to all or most of the scenarios and are gathered together here to save repeating them throughout the scenario descriptions.

HIDDEN SET-UP

Where indicated in the scenario, units can be **hidden** at the start of the game. These units must be deployed in such a way that they are either entirely in cover to all enemies that can see them, or else out of sight of enemy altogether. These units are still placed on the table in the usual way, and must be marked in some fashion to show that they are hidden – any distinct token or marker will do.

Enemy are still allowed to target hidden units where they normally could do so, but, because shooters cannot be certain where the enemy are, the chances of scoring a hit are very much reduced. If a unit is hidden then any cover penalties that would normally apply when it is shot at are increased to –4 for soft cover and –5 for hard cover. If shot at by indirect fire, a 6+ is required to hit even where shooter and target remain stationary from turn to turn. In addition, hidden units can never be chosen as targets for air strikes or artillery barrages from Forward Observers. They can still be struck by a preparatory bombardment as noted below and derive no benefit from being hidden in this case.

HIDING DURING A GAME

We do not normally allow troops to hide during the course of a game, but if players agree troops can be allowed to go hidden during a game if they would otherwise qualify as outlined above and are given a *down* order. Because this can slow down the game and makes some scenarios harder for one side to win we present it as an optional rule for experienced players rather than as a general rule of play.

Hidden units remain hidden until one of the following happens:

- The hidden unit is ordered to fire, advance or run.
- An enemy unit scores a hit on the hidden unit (other than preparatory bombardment)

- An enemy infantry or artillery unit moves to (or is set up) within 12″
- An enemy recce vehicle moves to (or is set up) within 12″
- Any other enemy vehicle moves to within 6″.

SETTING UP OBSERVERS AND SNIPERS

Unless players wish to agree otherwise, Spotters, Forward Air Observers, Forward Artillery Observers, and Snipers, together with any vehicles required to carry them, can be set up anywhere within the player's own half of the table at the start of the game, so long as they are more than 12″ from any enemy unit that is already deployed including enemy spotters, observers and snipers.

In an attacker/defender scenario the defender sets up his spotters, observers and snipers first. Otherwise the players alternate setting up one unit at a time – roll a dice to determine which side places first. Any observer and sniper units can also be set up *hidden* as noted above.

PREPARATORY BOMBARDMENT

When about to attack enemy defensive positions, it makes sense to 'soften them up' first with a bombardment from heavy artillery, rocket batteries or bombers. Such a bombardment often caused relatively few casualties to well dug-in troops, but it certainly encouraged the enemy to keep their heads down, unnerving them and sapping their fighting spirit.

The scenario played specifies when a preparatory bombardment is allowed. To see how effective the bombardment is, roll a die for each unit in the enemy set-up zone at the start of the game and consult the chart below. Targets that are in bunkers or comparable fortifications deduct –1 from the die roll, and cannot therefore score worse than a 5 or suffer more than 2 pin markers. However, note that hidden units derive no benefit from being hidden when working out preparatory bombardments.

PREPARATORY BOMBARDMENT CHART

D6	EFFECT
1	*That's miles away!* No effect
2 or 3	*That was close!* The unit takes 1 pin marker
4 or 5	*I can't take it any more!* The unit takes 2 pin markers
6	*Incoming!* The unit takes 2 pin markers and 1 automatic hit with a +3 penetration value. This counts as indirect fire, always striking the top armour of armoured vehicles with the resultant consequences

TOP SECRET

MAKING THE MOST OF CAPTURED EQUIPMENT

Both sides used captured equipment where they could and often they were glad to do so. This is especially true of the excellent T-34 medium tank. The superiority of this tank compared to their own machines came as quite a shock to the Germans when they invaded Russia in 1941. As a result many T-34 tanks were captured and pressed into service against their former owners. These were mostly the earlier T-34/76 tanks. By the time the Russians introduced the T-34/85, with a larger turret and more powerful gun, the Germans were on the retreat and opportunities to capture enemy tanks were rare. As a result few were used at the front; examples that fell into German hands were mostly sent back home for evaluation. German T-34s were modified by the installation of a new commander's cupola (often taken from a Panzer III or IV). German radio equipment was fitted and the vehicle was equipped with armoured skirts and storage boxes. Most importantly, captured vehicles were repainted in German colours and conspicuously marked with crosses to avoid confusion on the battlefield. Vehicles captured at the Kharkov works were modified in this fashion and formed a battalion of the 2nd Panzer Regiment of the 2nd SS Panzer Division 'Das Reich'.

A T-34/85 fitted and painted for service in the German army.

RESERVES

Reserves are troops that are neither deployed onto the table at the start of the game nor held back to form a first wave. Reserve units cannot do anything in the first turn of the battle (except during the Top Secret scenario as noted).

Even though reserves cannot do anything in the first turn, they must still be given orders, as their order dice will be included in the dice cup. The only order they can be given in turn 1 is *down* to show that the reserves are awaiting a command. Even vehicles are given a down order when in reserve, indicating that they are immobile that turn.

From turn 2 onwards (turn 1 in the Top Secret scenario) any units in reserve can be ordered on to the table with an *advance* or *run* order. Note that troops are not allowed to make an assault when they enter the table at a run – troops are only allowed to make an assault if they are already on the table at the start of their move. A player is not obliged to move troops from reserve: a unit can be left in reserve by giving it a *down* order.

When units move from reserve onto the table they **always** require an order check with a –1 penalty. So, a veteran unit with morale of 10 will require a 2D6 roll of 9 or less to pass its order check and move on to the table. Because an order test is required to move from reserve it is not completely certain when these units will arrive. If a unit fails to enter the battle before the end of the game it counts as destroyed – missing in action.

Infantry or artillery units that are in reserve can be mounted in transport vehicles or tows. The player should indicate this is the case during set-up.

Outflanking manoeuvre

A player can send any of his reserves on an outflanking manoeuvre either to his **left** or **right**. During set-up the player must indicate to his opponent any reserve units that are attempting an outflanking manoeuvre. The player secretly writes down which of his outflanking units is going left and which is going right. He can send all of his units one way or the other, or he can divide them if preferred, it is entirely up to the player. The player must reveal his written instructions only when the first outflanking force arrives on the table. Meanwhile, the other player will be aware that the enemy is moving round his flanks, but cannot be certain where they have been directed.

Units attempting an outflanking manoeuvre must be given *down* orders on turns 1 **and** 2. These units are, of course, manoeuvring beyond the confines of the tabletop, and the *down* order merely serves to indicate they are as yet unable to enter the battlefield.

From turn 3 onwards, outflanking units can be ordered onto the tabletop with an *advance* or *run* order in the same way as other reserves. An order test with a –1 penalty will be required as already described. Units outflanking on the left hand side can enter from the left hand table edge, those entering from the right hand side can enter from the right hand table edge. If moving onto the table in turn 3, outflanking units can enter along a side edge but not more than 24" from the player's own edge. So, if the tabletop is four feet wide they will be able to enter up to half way across. If entering in a subsequent turn, add a further 12" per additional turn, so up to 36" from the player's edge in turn 4, 48"in turn 5, and so on for battlefields of greater width.

CALCULATING VICTORY BY ATTRITION

The system described for working out which side has won is practical to apply and serves perfectly well for most kinds of game. However, there will be occasions when players want to calculate scores in a more precise manner. **Attrition** allow us to calculate a player's exact score and will prove useful where games are played as part of a tournament or formal competition.

Instead of being worth only 1 or 2 points irrespective of their requisition points value, in the attrition system units have a value equal to the number of **victory points** specified by the scenario multiplied by their **requisition points** value. For more about requisition points see p124.

For example, if a unit leaves the battlefield from the enemy table edge in an *envelopment* scenario it is worth 3 victory points. If such a unit cost 100 requisition points, it would be worth (3x100) 300 attrition. If the same unit were destroyed in

Soviet 45mm model 1937 anti-tank gun

a *maximum attrition* scenario, it would be worth 1 victory point and therefore (1x100) 100 attrition.

In a game where victory is determined by taking or holding objectives, first work out which side has won, drawn or lost the scenario as described. The attrition value of a destroyed enemy unit equals its requisition points multiplied by two in the case of the winning side. Losers and drawing sides just score the requisition points. If the scenario is lost, the maximum attrition value that can be scored is 10 less than that of the winner. For example, if the winner scores 460 attrition the loser's total score is capped at 450.

For example, in a demolition scenario the side that destroys the enemy base whilst preserving its own base intact is the winner – in this case the winner scores attrition equal to the requisition value of enemy units destroyed multiplied by two. An enemy unit with a requisition value of 75 points would therefore be worth (2 x 75) 150 attrition.

Regardless of how attrition is calculated, to win an outright victory one side must score at least 200 attrition more than the enemy. If neither sides scores at least 200 attrition more than the other the result is not decisive and the battle is a draw even though one side may have scored more attrition than the other.

This value for outright victory assumes you are playing with standard forces of 1,000 requisition points as noted earlier. If you play with considerably larger or smaller forces, it is a good idea to increase or decrease this value in proportion with the size of the forces – keeping the attrition required for outright victory at 20 per cent of the forces' requisition value.

This section includes army lists for the forces of Britain and Commonwealth, Germany, the Soviet Union and the United States of America.

Each list includes entries for a variety of infantry, artillery and vehicle units. Gaming values, armament details and any individual rules needed during play are included as part of each entry. Each unit is given a basic cost in requisition points together with further costs for additional equipment and other options.

The lists given here do not pretend to be exhaustive or to cover every theatre of the war, every kind of vehicle and every weapon – rather they are basic lists that cover the essential formations and weapons of each of the armies concerned. A series of separate Bolt Action supplements provides detailed and definitive army lists that supersede these lists and extend the armies covered into different theatres of the war and specific campaigns. The lists given here are generalised to a degree, and are based upon armies of the later part of the war – 1944 and 1945. This allows for a good variety of equipment and tanks. That does not mean that we cannot fight actions between the Vichy and Free French in the Middle East in 1941 – for example – but limited space obviously prevents us covering every campaign in detail in this book. Our intention is to offer both printed supplements for the major combatant nations, and appropriate online support for minor contributors and specialised theatres.

GUIDELINES TO FORCE SELECTION

Many players will have a good idea of how the real formations represented by our armies were organised. Others may be less familiar with the structure of World War II armies and the way in which they fought. The description given is obviously a fairly broad-brush summary, and different armies varied considerably in practice as might be readily imagined. However, it will serve to give an idea about how to go about putting together a wargames army for the tabletop battlefield.

British MkVIc light tank

SQUAD (NCO)

Broadly speaking the smallest infantry unit was the squad, or section, comprising around ten men commanded by a non-commissioned officer (NCO) such as a sergeant or corporal. A squad could be split into smaller groups or **fire-teams**, often comprising one group based around a light machine gun, and another based around rifle-armed troops. Squads were often under-strength due to casualties. In our lists infantry squads can usually be fielded at between five and twelve men, allowing a player to deploy them as smaller five-man teams, under-strength squads or squads at full strength.

PLATOON (LIEUTENANT)

A platoon was the next level of organisation. It consisted of two to five squads, for a total of roughly twenty to fifty men. It was commanded by the lowest rank of commissioned officer, a lieutenant or the equivalent, who might be assisted by a senior or platoon sergeant in some cases.

COMPANY (CAPTAIN)

A company is the largest level of organisation likely to be represented in our game. It consisted of between two and eight platoons, for a total of roughly one hundred to two hundred men. A captain or sometimes a major would command a company, and a senior NCO or warrant officer such as a company sergeant major might assist him.

INFANTRY SQUADS

The first thing to consider when assembling a force is the infantry. It's best to begin with infantry squads and pick two to

Fallschirmjäger 10.5cm LG40 recoilless gun

HIGHER LEVELS OF ORGANISATION

Just for the sake of curiosity, you might like to know that the structure continues with:

- Battalion. Two to six companies (up to over 1,000 men). Commanded by a lieutenant colonel.
- Regiment. Two or more battalions (up to over 2,000 men). Commanded by a colonel.
- Brigade. Two or more regiments (up to 5,000 men). Commanded by a brigadier general (one-star).
- Division. Two to four brigades (up to 15,000 men). Commanded by a major general (two-stars).
- Corps. Two or more divisions (up to 45,000 men). Commanded by a lieutenant general (three-stars).
- Army. Two to four corps (up to 200,000 men). Commanded by an army general (four-stars).
- Army Group. Two or more armies. Commanded by a field marshal or five-star general.

TOP SECRET

five squads of roughly ten men. Three squads is a good basic force to start with.

HEAVY WEAPONS SQUADS

After the infantry squads you will find a list of heavy weapons teams including machine guns, mortars, and portable anti-tank weapons such as bazookas. In a real army these teams would form specialised heavy weapons platoons or would be held at HQ level. Typically there would be something like three infantry platoons to one heavy weapons platoon. It makes good sense to keep a similar proportion in the game, with one mortar team, one machine gun team, one anti-tank team, flamethrower team, sniper team for every three full-strength infantry squads. If you include one each of every heavy weapon for every three infantry squads this still is a very high concentration of heavy weapons compared to a real battlefield, but it makes for a more interesting game and still maintains a reasonable relationship between the number of heavy weapons and men.

HEADQUARTERS STAFF

If three infantry squads represent a platoon, it makes sense to have a lieutenant to command it. Of course, the company's captain might have come down to keep a close look at this part of the engagement, so he could be fielded in addition to (or instead of) the lieutenant if desired. He will prove more useful in larger games with company-sized forces.

Medics were normally one per platoon, so once again if one is included it will feel about right. Forward observers were less common, and it would be therefore best to select no more than one for the army unless it is a very large game, in which case a force might include one of each type.

ARTILLERY AND VEHICLES

Anti-tank guns and howitzers, as well as combat vehicles like tanks and armoured cars, were normally assigned to support infantry by high command when necessary, so on the level of our game they should be a comparably rare sight on the battlefield. However, a game devoid of tanks and big guns would be a dull affair, so we are prepared to accept that our part of the battlefield just happens to be where the opposing

Polish paratroopers prepare their 6 pdr anti-tank gun for action tanks and armour are concentrated. We recommend using a maximum of one tank, one other lightly armoured vehicle and one piece of artillery for every three infantry squads in your force.

Transport vehicles (particularly soft-skins) are a bit more common and we'd happily include up to one such vehicle per infantry squad in addition to any other vehicles mentioned above.

LARGER FORCES

Games significantly larger than our standard 1,000 requisition points would tend towards company-level actions and therefore it would make sense to include multiples based on the proportions discussed.

FORCE SELECTION RULES

The following rules are a distilled version of the guidelines discussed above. They have been formalised with a view to putting together armies that are reasonably well balanced in play rather than being strictly based on historical formations. Sticklers who wish to follow the orders of battle for actual historical engagements are entirely welcome to do so of course; the purpose of these lists is to enable players who wish to do so to choose well-matched, competitive, and entertaining forces with which to play a challenging game.

A force must comprise one or more **reinforced platoons** picked from one of the four Army Lists. Each reinforced platoon is made up as per the table opposite.

When picking a force begin with the first reinforced platoon and start by fulfilling its minimum requirement of 1 lieutenant and 2 infantry squads. Once this is done, pick from the other units given until the total requisition value of your units reaches the agreed maximum value for the force or as close as you can get.

So long as you have sufficient points remaining, you can always stop at any stage and start again with a second reinforced platoon, and then a third, and so on, adding as many platoons as your points will allow.

Note that transports can always be included up to one vehicle for every infantry and artillery unit in the reinforced platoon. This enables infantry to be mounted into carriers if desired, HQ units to have jeeps or similar vehicles, and artillery and anti-tank guns to have prime movers.

It is perfectly possible to spend all the points available on one large reinforced platoon, or to buy several smaller reinforced platoons allowing for a higher proportion of specialised units. This is entirely up to the player, but always keep in mind that the total value cannot exceed the maximum total requisition points agreed for the force.

Eagle-eyed readers will notice that that Anti-aircraft guns are included in the force selection list but are not included in the army lists in this book. This is because these are specialised weapons and it was felt unnecessary to include them in the basic lists. However, they do appear in the various Bolt Action supplements and so have been included in the selection rules.

REINFORCED PLATOON	
1	Lieutenant – First or Second
2	Infantry squads
PLUS	
0–3	Infantry squads
0–1	Captain or Major
0–1	Medic
0–1	Forward Observer (either Artillery or Air)
0–1	Machine gun team
0–1	Mortar team
0–1	Sniper team
0–1	Flamethrower team
0–1	Anti-tank team
0–1	Field Artillery, Anti-aircraft or Anti-tank gun
0–1	Armoured Car
0–1	Tank, Tank Destroyer, Anti-aircraft vehicle or Self-propelled Artillery
0–1	Transport vehicle or tow (soft skins or armoured) **per** infantry and artillery unit in the reinforced platoon.

GERMANY

This list is based upon the troops and equipment available to the German army during the final year of the war in Europe. By this time the Germans have access to some of the very best tanks, tank destroyers and anti-tank guns of the entire war, as well as stalwart weaponry such as the Panzer IV and the fearsome MG42 machine gun. By now the hand-thrown anti-tank grenade has largely passed out of use except amongst some improvised units and Luftwaffe field units, and replaced by the dreaded panzerfaust. Although many infantry still carry bolt-action rifles, many now have the StG44 assault rifle.

ARMY SPECIAL RULES

INITIATIVE TRAINING

In the German army every man is trained with some of the skills of his superiors, and encouraged to show initiative and decisiveness rather than just sit and wait to receive orders.

If an infantry squad's NCO is killed then roll a D6. On the score of a 1, 2 or 3 the NCO is removed as normal. On the roll of a 4, 5 or 6 one of the other troopers takes over the squad and leads it just as effectively as before. To represent this leave the NCO is place and remove any other model instead. If the NCO is successfully replaced the unit does not suffer the usual –1 Morale penalty for losing its NCO.

HITLER'S BUZZSAW

German-made machine guns, but in particular the lethal MG42, are vastly superior to their enemies' and rightly feared by Allied infantrymen.

German infantry units equipped with light and medium machine guns fire one extra shot (4 for a LMG and 5 for a MMG). Note that this only applies to infantry units, and not to vehicles or vehicle crews that carry machine guns.

TYPES OF UNIT

The list is divided into categories as follows.

1 Infantry	Headquarters units Infantry squads and teams
2 Artillery	Field artillery Anti-tank guns
3 Vehicles	Tanks Tank destroyers Self-propelled artillery Anti-aircraft vehicles Armoured cars Transports and tows

HEADQUARTERS UNITS

Each platoon is centred upon a core that includes a headquarters unit in the form of a First or Second Lieutenant. Other HQ units can be added to the force, including higher-ranking officers, as well as medical units and supporting observers.

OFFICER

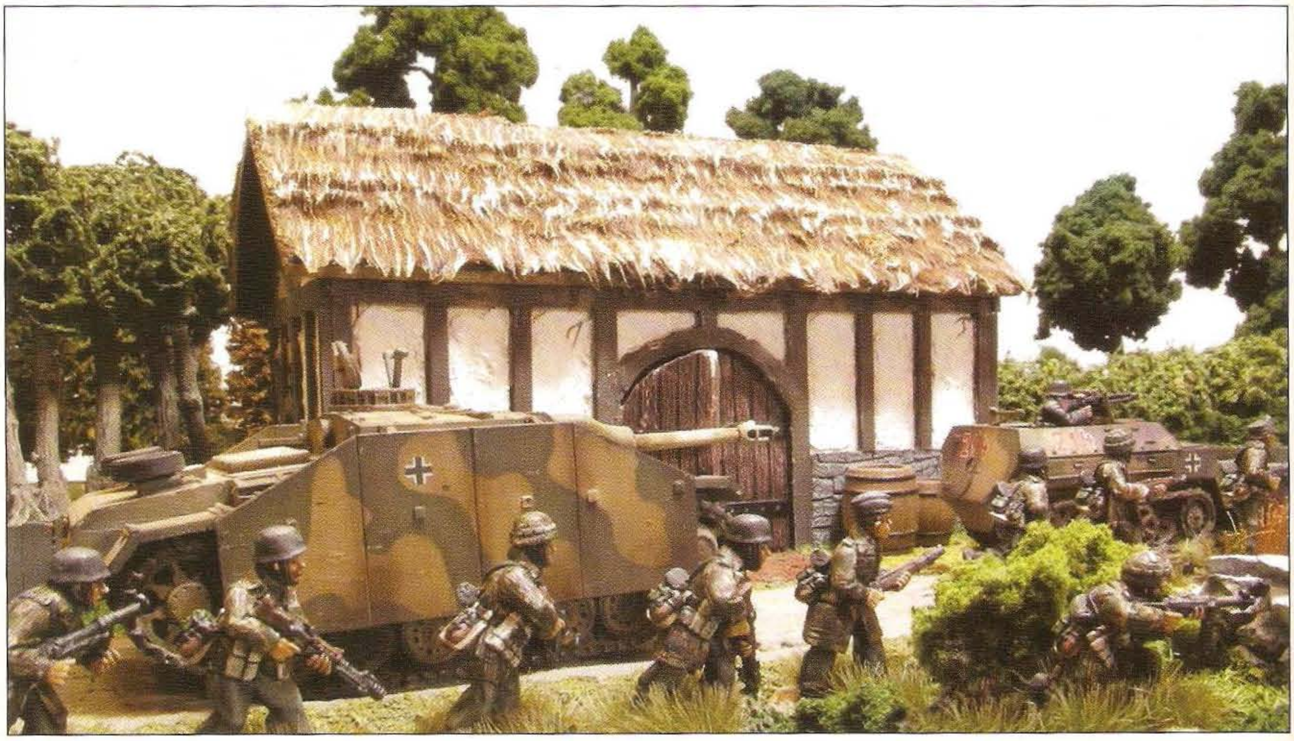
German officers were capable and often experienced leaders. In the German army junior officers were trained to undertake the role of their own immediate superiors, enabling them to use their intuitition to take control of situations when necessary. An officer unit consists of the man himself and can include up to two other men acting as his immediate attendants. Because of the high quality of the majority of German officers we rate them as regular or veteran.

Cost:	Second Lieutenant (Leutnant) 50pts (Regular), 65pts (Veteran) First Lieutenant (Oberleutnant) 75pts (Regular), 90pts (Veteran) Captain (Hauptmann) 110pts (Regular), 125pts (Veteran) Major (Major) 150pts (Regular), 165pts (Veteran)
Team:	1 officer and up to 2 further men
Weapons:	Pistol, submachine gun, rifle, or assault rifle as depicted on the models

Options:

- The officer may be accompanied by up to 2 men at a cost of +10pts per man (regular) or +13pts per man (veteran)

German big cats looking for trouble



The Green Devils! German paratroopers advance.

MEDIC

The field medic presents the wounded soldier with his best chance of surviving serious injury and can ensure that lightly wounded soldiers are returned to fighting fitness as rapidly as possible. Junior medical staff such as stretcher-bearers can accompany medics in the field. All medical staff are considered courageous as befits their calling, and hence they are rated as veteran. Under the Geneva Convention medics were unarmed non-combatants – however, such niceties were seldom observed on the Eastern Front at least.

Cost: Medic 30pts (Veteran)

Team: 1 medic and up to 2 further men

Weapons: Pistol or none as depicted on the model

Options:

- The medic may be accompanied by up to 2 men at a cost of +13pts per man

FORWARD OBSERVER

Forward observers are liaison officers responsible for coordinating the attack of heavy artillery batteries from behind the lines or aircraft strikes. They are likely to be accompanied by a radio operator and other immediate attendants. We rate these officers as regular or veteran, those of lesser ability being unlikely to find themselves in such a position.

Cost: Artillery Forward Observer
100pts (regular), 115pts (veteran)
Air Force Forward Observer
75pts (Regular), 90pts (Veteran)

Team: 1 Forward Observer and up to 2 further men

Weapons: Pistol, submachine gun, rifle, or assault rifle as depicted on the models

Options:

- The observer may be accompanied by up to 2 men at a cost of +10pts per man (Regular) or +13pts per man (Veteran)

INFANTRY SQUADS AND TEAMS

German infantry were generally well trained, well led and well equipped – constituting what was undoubtedly the most effective fighting force in Europe man-for-man. The German army was also heavily outnumbered and as the war progressed compromises in recruitment, equipment shortages, and failures of leadership at the highest level all began to take their toll.

WEHRMACHT INFANTRY SQUAD

Wehrmacht – meaning *armed might* – encompasses the forces of the German army, navy and airforce and we will consider them as a whole together with the fourth branch, the Waffen-SS. Some German Luftwaffe formations were effectively ground troops, such as Luftwaffe field divisions and the Hermann Goring Panzer Division. Both paratroops and anti-aircraft units were part of the Luftwaffe. German infantry were provided with the best light machine gun of the war – the rapid firing MG42 – and many squads carried two. By the late war most German infantry squads could carry a proportion of StG44 assault rifles or submachine guns instead of rifles. Most carried panzerfaust, although some Luftwaffe field units carried hand-thrown mines until the end of the war. However, the exact weaponry carried could vary greatly in practice, and so we allow a squad to be built up as follows.

Cost:	Regular Infantry 50pts
Composition:	1 NCO and 4 men
Weapons:	Rifles

Options:

- Add up to 5 additional men with rifles at +10pts each.
- The NCO and up to 1 man can have a submachine gun instead of rifles for +3pts each
- The NCO and up to 2 men can have assault rifles instead of rifles for +5pts each
- Up to 2 men can have a light machine gun for +20pts – for each light machine gun included another man becomes the loader
- Up to 4 men can have a panzerfaust in addition to other weapons for +5pts each
- If panzerfaust are not taken the squad can be given anti-tank grenades instead for +2pts per man

Special Rules:

- Tank hunters (if anti-tank grenades taken)

WAFFEN-SS, FALLSCHIRMJÄGER OR VETERAN INFANTRY SQUAD

The Waffen-SS formed an elite fighting formation separate from the German army and not strictly part of the Wehrmacht. By the end of the war the Waffen-SS comprised almost 600,000 men. Often fighting at the forefront of an offensive, they proved themselves dangerous adversaries. Fallschirmjägers – German for *paratroopers* – were elite troops who formed part of the Luftwaffe. Although they took part in airborne operations in the early part of the war, from mid-1944 they were reduced to the role of ground troops. As an elite formation they had access to the best equipment and made considerable use of assault rifles in the form of the FG42 automatic rifle and later the StG44. The German army was not without its experienced troops, the survivors of bloodthirsty fighting on the Eastern Front or the veterans of Africa and Italy. These formations can be built up as follows.

Cost:	Veteran Infantry 65pts
Composition:	1 NCO and 4 men
Weapons:	Rifles

Options:

- Add up to 5 additional men with rifles at +13pts each
- The NCO and up to 6 men can have a submachine gun instead of rifles for +3pts each
- The NCO and up to 9 men can have assault rifles instead of rifles for +5pts each
- Up to 2 men can have a light machine gun for +20pts – for each light machine gun included another man becomes the loader
- Up to 4 men can have a panzerfaust in addition to other weapons for +5pts each

VOLKSSTURM, OSTTRUPPEN OR INEXPERIENCED INFANTRY SQUAD

Even the German army could include green or unmotivated elements – although this would have been rare before the final months of the war. Osttruppen were units recruited from the occupied territories of the east, often from amongst people who had no great love of Stalin's Russia and often welcomed the German occupation. This included ethnic groups such as Turkmen, Kalmyks, Armenians, Azerbaijanis and Georgians from

TOP SECRET

In the fighting around Hastenrath during the assault upon the Siegfried Line, one brave tanker defied the odds when the rest of his crew were killed. With his Sherman immobilised at night in the middle of a road junction, he might have sensibly decided to abandon the tank and make a run for it. Instead he continued to load and fire the Sherman's main armament against advancing German infantry. Once he had run out of HE shells the lone crewman resorted to using the tank's .30 calibre machine guns. When the ammunition for these was gone he opened the turret hatch and manned the .50 calibre machine gun. Having exhausted all the .50 calibre ammo, he then resorted to the .45 Thomson carried in the fighting compartment, proceeding to empty this and his pistol towards the enemy before climbing back inside the tank once more. The Germans pressed forward and clambered onto the tank. Its occupant cracked open the hatch just sufficiently to toss a grenade onto the deck where it exploded killing the luckless foes. The lone tanker continued in this fashion until all of his grenades were gone. American infantry found him the following morning, alive and well, with his tank surrounded by the bodies of dead and wounded Germans.

the east as well as Balts, Finns, Ukrainians, White Russians, and Siberians. These units were generally kept away from the fighting until the final years of the war, when they often surrendered en masse rather than face Allied troops. If the Osttruppen were unwilling the Volkssturm were a different kettle of fish; militia recruited from amongst the old, unfit and young, many being drawn from the ranks of the Hitler Youth. They were ill-equipped with a variety of weaponry including crudely made Volkssturm MP3008 submachine guns and Volkssturmgewehr rifle. Others carried weapons captured earlier in the war or dating back to the previous century. Any of these squads can be built as follows.

Cost:	Inexperienced Infantry 35pts
Composition:	1 NCO and 4 men
Weapons:	Rifles

Options:

- Add up to 5 additional men with rifles at +7pts each
- The NCO and up to 2 men may have a submachine gun for +3pts
- Up to 4 men can have a panzerfaust in addition to other weapons for +5pts each
- Unless Volkssturm, up to 1 man can have a light machine gun for +20pts – for each light machine gun included another man becomes the loader. Volkssturm units cannot have light machine guns
- Volkssturm units can be *Green* at no extra points cost
- Osttruppen units can be *Shirkers* for a reduction of 3pts per man
- Unless Osttruppen are equipped with panzerfaust, units can be given anti-tank grenades for +2pts per man

Special Rules:

- Volkssturm units can be Green
- Osttruppen can be Shirkers
- Tank hunters (if anti-tank grenades taken)

VOLKS GRENADIER SQUAD

As the Germans found it increasingly difficult to field enough men or equipment, it was decided to create new kinds of formation with more emphasis on light automatic weapons – in particular the new StG44 assault rifle – partly to compensate for lack of training and inexperience amongst recruits. Volks Grenadiers should not be confused with Volkssturm, a desperate militia of old men and young boys. In theory at least the Volk Grenadiers were formed around a core of veteran troops and NCOs and were often highly motivated and patriotic fighters. Units were often under-strength and supply problems meant they carried an assortment of weapons – although we have chosen to present them as ideally intended – armed to the teeth with assault rifles. Whilst many Volks Grenadier units crumbled before the enemy, others fought with astonishing tenacity, and to reflect this we make them *green* but with a further chance of emerging as regulars or even veterans under fire.

Cost:	Inexperienced Infantry 60pts
Composition:	1 NCO and 4 men
Weapons:	Assault rifles

Options:

- Add up to 5 additional men with rifles at 7pts each
- Any riflemen can be given an assault rifle instead at +5pts each
- Any riflemen can be given a submachine gun instead at +3pts per model
- Up to 1 man can have a light machine gun for +20pts – for each light machine gun included another man becomes the loader
- Up to 4 men can have a panzerfaust in addition to other weapons for +5pts each

Special Rules:

- Green – Volks Grenadier squads are green and must test when they first suffer a casualty as described on p42. However, if Volks Grenadiers pass their test and are uprated to regular infantry, then roll a further die and on a roll of a 5 or 6 they are uprated again to veterans

MACHINE GUN TEAM

The Germans were equipped with two excellent machine guns in the MG34 and rapid firing MG42 – known to Allied troops as 'Hitler's Buzzsaw' because of its distinctive noise. Unlike other armies the Germans used the same machine gun both as a squad weapon and as a tripod mounted support weapon. The tripod mount provided a much more stable firing platform and made it easier to keep up a continuous fire using a belt feed. We therefore treat the tripod-mounted gun as a medium machine gun, whilst the squad weapon is treated as a light machine gun. As described in the rules for team weapons, although crew members would be likely to carry rifles or submachine guns we consider them to be preoccupied serving their weapon and so do not include separate arms.

Cost:	35pts (Inexperienced), 50pts (Regular), 65pts (Veteran)
Team:	3 men
Weapon:	1 MMG

Special Rules:

- Team weapon
- Fixed

PANZERSCHRECK ANTI-TANK TEAM

The panzerschreck was a German development of the bazooka, firing a large calibre shaped-charge rocket projectile. The back-blast from the weapon was so intense early teams wore protective capes and masks. Later a blast shield was fitted to the weapon giving it its distinctive appearance. The panzerschreck and disposable anti-tank panzerfaust had replaced the anti-tank rifle Panzerbuchse 39 by 1944.

Cost: 56pts (Inexperienced), 80pts (Regular), 104pts (Veteran)
Team: 2 men
Weapons: 1 panzerschreck
Special Rules:

- Team weapon
- Shaped charge

SNIPER TEAM

The value of the sniper was brought home during the battle of Stalingrad where Russian snipers took such a heavy toll of German troops. The Wehrmacht trained and equipped marksmen to undertake a specialist role as snipers. A variety of rifles were used for sniping, including the standard infantry rifle and semi-automatic Gewehr 43. All were fitted with telescopic sights and snipers were provided with specially manufactured ammunition.

Cost: 50pts (Regular), 65pts (Veteran)
Team: 2 men
Weapons: 1 rifle
Special Rules:

- Team weapon
- Sniper

FLAMETHROWER TEAM

Flamethrowers – *flammenwerfer* – were used throughout the war and were often employed against buildings or fortifications. These were not weapons to put into the hands of the inexperienced, so we rate flamethrower teams as regular or better. At the very end of the war the Germans were developing a lighter, smaller design that carried enough fuel for a single burst – effectively a one shot flamethrower – the *Einstossflammenwerfer*. As with many of the more unusual weapons under development at the end of the war, hostilities ceased before this could be issued.

Cost: 50pts (Regular), 65pts (Veteran)
Team: 2 men
Weapons: 1 infantry flamethrower
Special Rules:

- Flamethrower
- Team weapon (Flammenwerfer)

LIGHT MORTAR TEAM

The Germans had mortars – *granatwerfer* – in several calibres, the lightest of which was the 50mm infantry mortar. This was basically a close-range support weapon that could easily be carried and used by infantry. The Germans also made use of captured mortars including the Russian 50mm. As the war progressed the 50mm mortar was replaced with a lightened version of the 80mm mortar in the same role – this was the "Stummelwerfer" or "Stump-Thrower". By the period represented by this list the 50mm had been dropped from frontline service, although it could still be found in the hands of garrison troops and reservists. Either way, we treat both the 50mm and shortened 80mm as light mortars.

Cost: 24pts (Inexperienced), 35pts (Regular), 46pts (Veteran)
Team: 2 men
Weapon: 1 light mortar
Special Rules:

- Team weapon
- Indirect fire
- HE (D3)

MEDIUM MORTAR TEAM

The standard German medium mortar of the war was the 80mm Granatwerfer 34. It was a very effective and accurate weapon that could provide long-range fire support.

Cost: 35pts (Inexperienced), 50pts (Regular), 65pts (Veteran)
Team: 3 men
Weapon: 1 medium mortar
Options:

- May add Spotter for +10pts

Special Rules:

- Team weapon
- Fixed
- Indirect fire
- HE (D6)

TOP SECRET

Michael Wittmann was one of Germany's most famous 'panzer aces' of World War II. During his career he was credited with destroying 138 enemy tanks and 132 anti-tank guns. He fought throughout the war until his death. During the battle of France and invasion of Greece he commanded a Stug III assault gun (Sturmgeschutz III). But it was on the Eastern Front where Wittmann was to establish his reputation and score most of his kills. He quickly rose to the rank of second lieutenant (Untersturmfuhrer) and by the time of the battle of Kursk he was leading a platoon of Tiger tanks. In April of 1944 his company was transferred to SS-Heavy Panzer Battalion 101 in Normandy. During the fighting Wittmann was ordered to occupy the small town of Villars-Bocage. Unknown to his commanders the town had already been occupied by the British 22nd Armoured Brigade. Observing elements of the enemy formation advancing along the road out of the town, Wittmann saw his opportunity and struck. Within a quarter of an hour his five Tiger tanks had destroyed more than a dozen enemy tanks and at least as many other vehicles. His advance against the town had been courageous, but ill prepared and arguably reckless. In August 1944, as he led a formation in a counter-attack towards Saint-Aignan-de-Cramesnil, his Tiger was caught in crossfire from Sherman Fireflies belonging to the Northamptonshire Yeomanry and the Sherbrooke Fusiliers. A single shot penetrated his tank's engine compartment causing an ammunition explosion that blew the Tiger apart, throwing the turret some distance from the wreck. Wittmann and his crew were killed instantly.

HEAVY MORTAR TEAM

The heavy mortar used by the German was the 120mm calibre Granatwerfer 42. It was a close copy of captured Russian mortars and was developed to give the infantry an even longer range and heavier weight of shot than the 80mm mortar.

Cost: 46pts (Inexperienced), 65pts (Regular), 84pts (Veteran)
Team: 4 men
Weapon: 1 heavy mortar
Options:

- May add Spotter for +10pts

Special Rules:

- Team weapon
- Fixed
- Indirect fire
- HE (2D6)

FIELD ARTILLERY

German field artillery often lagged behind that of Germany's enemies in terms of development and effectiveness. Many of the larger weapons dated from the previous war, whilst field guns were frequently those captured during earlier campaigns. Outranged by bigger and heavier Russian weapons, and substantially outgunned on both Eastern and Western Fronts, the Germans soldiered on with what could be mustered.

LIGHT ARTILLERY

The Germans employed a tremendous variety of light infantry guns, mountain guns and field guns and howitzers, which generally had a calibre of 75mm. These guns were used for close support and were light enough to be manhandled by their crews. As with all team-based units artillerymen serving their weapon are treated as unarmed – even where individual models might carry small arms.

Cost: 40pts (Inexperienced), 50pts (Regular), 60pts (Veteran)
Team: 3 men
Weapons: 1 light howitzer
Special Rules:

- Gun shield
- Team weapon
- Fixed
- Howitzer
- HE (D6)

MEDIUM ARTILLERY

The Germans employed howitzers of 105mm calibre and larger at divisional level. These long-ranged weapons would be unlikely to see action in the kind of fire fights portrayed in the Bolt Action game, unless of course they were to be caught up in a rapid enemy advance. In these circumstances artillery pieces would certainly give a good account of themselves.

Cost: 60pts (Inexperienced), 75pts (Regular), 90pts (Veteran)
Team: 4 men
Weapon: 1 medium howitzer

Options:
- May add Spotter for +10pts

Special Rules:
- Gun shield
- Team weapon
- Fixed
- Howitzer
- HE (2D6)

HEAVY ARTILLERY

The Germans employed a variety of heavy field guns, mostly of 150mm calibre including the Feldhaubitze 18 or sFH 18 which formed the standard divisional heavy artillery. The same weapon was used in the Hummel self-propelled gun. Of course, these were not the largest guns available to the German armed forces, but they were the most common of the heavy artillery, larger guns often being favoured for coastal defence rather than action in the field.

Cost: 92pts (Inexperienced), 115pts (Regular), 138pts (Veteran).
Team: 5 men
Weapon: 1 heavy howitzer

Options:
- May add Spotter for +10pts

Special Rules:
- Gun shield
- Team weapon
- Fixed
- Howitzer
- HE (3D6)

ANTI-TANK GUNS

During the whole of World War II German anti-tank gun developments remained firmly ahead of that of the Allies, with continuous improvements creating weapons with greater velocities capable of punching through the thickest armour. This gave the Germans a significant advantage in tank warfare even when vastly outnumbered.

PANZERBÜCHSE 41

Panzerbüchse is German for anti-tank rifle but the sPzB 41 was effectively a small anti-tank gun with its own carriage and crew. This remarkable gun was designed on the 'squeeze bore' principle with the bore reducing from 28mm to 20mm, propelling the shell to a much higher velocity than with a conventional anti-tank gun. Combined with tungsten core ammunition this gave the sPsB 41 remarkable armour

Pz IV moving through a village

penetration at short ranges – though performance dropped off rapidly over distance. It was used throughout the war by a variety of troops – even including paratroopers. By the late war it was the only light anti-tank gun in service – the 37mm Pak 36 having been withdrawn as an anti-tank gun, although often fitted as a support weapon to carriers.

Cost: 40pts (Inexperienced), 50pts (Regular), 60pts (Veteran)
Crew: 2 men
Weapon: Light anti-tank gun
Special Rules:

- Team weapon
- Fixed
- Squeeze-bore – at ranges of up to 12" armour penetration is increased by 2 to +6, at over half range armour penetration is reduced by 2 instead of the usual 1 to +2

50MM PAK 38

The Pak 38 was a good weapon in its day with a 50mm calibre and tungsten core ammunition. During the invasion of Russia it was one of the few German tank guns capable of piercing the front armour of a T34. The 50mm gun was gradually replaced by the more powerful 75mm Pak 40 as the heavier gun became available in increasing numbers through 1942 and 43. Some remained in service until the end and were still effective against the majority of Allied tanks.

Cost: 60pts (Inexperienced), 75pts (Regular), 90pts (Veteran)
Crew: 3 men
Weapon: Medium anti-tank gun.
Special Rules:

- Gun shield
- Team weapon
- Fixed

75MM PAK 40

The Pak 40 was the standard German anti-tank gun of the late war period. It was an effective weapon that was capable of destroying almost any Allied tank. It was, however, a great deal heavier than the Pak 38 and could only be practically towed by artillery tractors.

Cost: 88pts (Inexperienced), 110pts (Regular), 132pts (Veteran)
Crew: 4 men
Weapon: Heavy anti-tank gun
Special Rules:

- Gun shield
- Team weapon
- Fixed

88MM PAK 43

The Pak 43 was the most formidable German anti-tank gun used in significant numbers during the war and one of the most dreaded weapons to be found on the battlefield. This was a version of the same high-velocity 88mm gun that equipped the Tiger II, and it was easily capable of penetrating and destroying even the most heavily armoured Allied tanks including such monsters as the Soviet IS-II. It was a very heavy weapon and early versions were fixed to a stable cruciform mount much like the Flak version of the weapon. However, by the late war this had been augmented by a split-trail wheeled carriage – a version known as the 'barn door' from the appearance of the gun's large, flat gun shield.

Cost: 112pts (Inexperienced), 140pts (Regular), 168pts (Veteran)
Crew: 5 men
Weapon: Super-heavy anti-tank gun
Special Rules:

- Gun shield
- Team weapon
- Fixed

TANKS

By the late war the Germans had developed a bewildering variety of tanks and tank destroyers including some of the heaviest tanks to see action during the whole conflict. The Panzer IV, up-gunned and up armoured since the beginning of hostilities, is still a formidable weapon, whilst the Tiger II and Panther can meet and defeat any tank the Allies can pitch against it.

German Army
7.5cm Pak 40 anti-tank gun

LUCHS

The Luchs – *Lynx* – was the last version of the Panzer II, the light tank with which the German had commenced hostilities. By the final year of World War II the role of the light tank had been reduced to that of a reconnaissance vehicle. As such it was a very effective weapon that was easily capable of matching Allied armoured cars. The Luchs was armed with a 20mm autocannon and co-axial machine gun – plans to up-gun with a 50mm cannon were brought to a halt with the end of the war.

Cost: 92pts (Inexperienced), 115pts (Regular), 138pts (Veteran)

Weapons: One turret-mounted light autocannon with co-axial MMG

Damage Value: 8+ (light tank)

Special Rules:

- Recce

PANZER IV

The Panzer IV saw service throughout the war from the Polish campaign and the battle of France through to D-Day and the fall of Germany. Its defensive armour of 50mm was adequate – although vulnerable to the more powerful Allied anti-tank guns developed in the last years of the war. Its main armament was capable of penetrating most Allied tanks at long range. The details included here cover the Aust F2, G, H and J versions of this ubiquitous German tank – all armed with the 75mm *Kampfwagenkanone 40* (KwK 40).

Cost: 188pts (Inexperienced), 235pts (Regular), 282pts (Veteran)

Weapons: One turret-mounted heavy anti-tank gun with co-axial MMG and one forward facing hull-mounted MMG

Damage Value: 9+ (medium tank)

PANTHER

The Panther was the best all-round German tank of the war and although conceived as a medium tank, at 45 tons and with frontal armour over 100 thick we shall rate the front armour more highly. The Panther's thick, sloping front armour was copied from the Russian T-34 but the main gun was a weapon that far excelled anything the Russians possessed, the high velocity KwK 42 L70, which was capable of penetrating any Allied tank in service when it was first introduced.

Cost: 355pts (Regular), 426pts (Veteran)

Weapons: One turret-mounted super-heavy anti-tank gun with co-axial MMG and forward facing hull-mounted MMG

Damage Value: 9+ (medium tank)

Special Rules:

- The Panther's heavy frontal armour has a rating of +1 giving it the 3 same frontal value as a heavy tank (10+)

TIGER

The Tiger is probably the best known of all German tanks of World War II and certainly the tank most feared by the Allies! It was a lumbering monster of a tank and its 88mm gun was easily capable of destroying even the most heavily armoured Allied tanks of the day. By the end of the war the Tiger had been superseded by better designs, but it still valiantly fought on, and Tigers would stalk the ruins of Berlin in the last days of the Third Reich.

Cost: 395pts (Regular), 474pts (Veteran)

Weapons: One turret-mounted super-heavy anti-tank gun with co-axial MMG and forward facing hull-mounted MMG

Damage Value: 10+ (heavy tank)

TIGER II

The Tiger II has been described as the most powerful combat tank of the war with armour that was almost impervious to the guns of Allied tanks and a high velocity 88mm gun that could destroy any Allied tank with relative ease. Wherever they were used they dominated the battlefield, but there were never enough to stem the advancing Allied armies and in the end the Germans were simply overwhelmed by numbers.

Cost: 555pts (Regular), 666pts (Veteran)

Weapons: One turret-mounted super-heavy anti-tank gun with

German Tiger I ausf H in winter camouflage co-axial MMG and forward facing hull-mounted MMG

Damage Value: 11+ (super-heavy tank)

TANK DESTROYERS

As the war progressed the Germans came to believe that turretless tank destroyers could be at least as effective as tanks in many situations, and – of course – they were much quicker and cheaper to build than tanks with their complex turret mechanics. In fact, although excellent in an ambush role, when pitched against enemy tanks in the open, tank destroyers were at a huge disadvantage, being unable to turn their weapon to bear beyond their immediate front. Even so, the Jagdtiger was the heaviest and most heavily armed armoured fighting vehicle of the war, the most potent weapon of its kind by far.

STUG III/IV

The Sturmgeschutz – *assault gun* – was developed as an infantry support weapon based on the Panzer III chassis. By the later part of the war it was armed with the same long barrelled 75mm anti-tank gun as the Panzer IV and often deployed as a tank destroyer. The Stug III was produced in more numbers than any other German armoured fighting vehicle – over 10,000 in all. Later Stugs incorporated a co-axial machine gun and many vehicles that lacked them were subsequently retrofitted to provide more firepower against enemy infantry. Production of the Stug III was severely curtailed by Allied bombing, following which the Germans shifted some Panzer IV production over to assault guns built on the Panzer IV chassis. These Stug IVs were entirely comparable to the earlier Stugs in performance and mounted the same gun, so the two types have been included together.

Cost: 184pts (Inexperienced), 230pts (Regular), 276pts (Veteran)

Weapons: One casement-mounted forward facing heavy anti-tank gun and remotely operated MMG with 360-degree arc of fire

Damage Value: 9+ (medium tank)

Options:

- May add a forward facing co-axial MMG for +15pts

JAGDPANZER IV

The Jagdpanzer IV was developed in 1943 as a tank destroyer based on the Panzer IV chassis. Its frontal armour was thicker than a Panzer IV, and with its low profile and powerful gun it proved a successful weapon that continued to serve the German forces until the war's end. Initial versions of the Jagdpanzer IV were produced with the same 75mm gun as the Panzer IV, but later versions were fitted with the more powerful 75mm gun from the Panther.

Cost: 216pts (Inexperienced), 270pts (Regular), 324pts (Veteran)

Weapons: One casement-mounted forward facing heavy anti-tank gun and forward facing hull-mounted MMG

Damage Value: 9+ (medium tank)

Options:

- May replace heavy anti-tank gun with super-heavy anti-tank gun (75mm L70) for 80pts

Special Rules:

- The Jagdpanzer's heavy frontal armour has a rating of + 1 giving it the 3 same frontal value as a heavy tank (10+)

Jagdpanther tank destroyer

THE TANK AT WAR

Before the war the armed services of various nations had developed their own tank designs. At the time no one was really sure what the role of tanks might be in any future conflict. Some tacticians clung to the idea of the tank as a mobile pillbox advancing slowly in support of infantry. Others considered that tanks would have no significant part to play at all, arguing that the penetrating power of the modern anti-tank gun rendered tanks obsolete. A few theorists – such as Captain Liddell Hart – foresaw the potential of mobile armoured formations combining infantry and tanks.

When the war began both sides were obliged to make the best use of the weapons and doctrines at their disposal. The tanks available to the Germans were not necessarily superior to those of their enemies; however, German tanks were mechanically reliable, they were equipped with radios, and their crews were likely to be more experienced. More importantly, German generals were willing to exploit the speed of the tank as part of an unstoppable *Blitzkrieg*. In comparison British tanks were slow, mechanically unreliable and many were equipped only with machine guns. French tanks – though some of the most advanced of the day – lacked radios, and the prevailing defensive tactical doctrine made it impossible to exploit their mobility and firepower.

So – as wargamers can we do better? Is it possible to set a wargame during the Polish campaign, the battle of France, the Norwegian campaign or the early East Africa or Western Desert campaigns? Of course the answer is yes indeed, for such a game can be every bit as challenging as games set during the latter part of the war. With the benefit of hindsight we can allow ourselves the luxury of deploying our formations in a manner that exploits the strength of the various arms unhindered by outmoded tactical ideas, supply problems, or mechanical failings (all our tanks are excellently maintained by imaginary engineers of unparalleled efficiency). We will also wish to fight games that are reasonably fair – pitching forces against each other that are more or less equal in size and potency. Within the context of our wargame even the lightest tanks of the early war become terrifying monsters of steel. The best of the Allied designs, such as the French Somua S35, are a good match for the German (and captured Czech) vehicles likely to oppose them. The French Char B and British Matilda are more heavily armoured than any contemporary German tank, even if they are also comparatively slow as a result.

TOP SECRET

JAGDPANTHER

The Jagdpanther tank destroyer was based on the Panther chassis and combined that tank's excellent mobility with a hard-hitting KwK 43 88mm gun as used in the Tiger II. This powerful gun was mounted into an extended front glacis that created a heavily-armoured casement for the crew. Jagdpanthers took part in the fighting on both Eastern and Western Fronts and were used during the battle of the Bulge. However, like all German tank destroyers its arc of fire was limited, reducing its effectiveness when deployed in a mobile role.

Cost: 312pts (Inexperienced), 390pts (Regular), 468pts (Veteran)

Weapons: One hull mounted forward facing super-heavy anti-tank gun and one forward facing hull-mounted MMG

Damage Value: 10+ (heavy tank)

JAGDTIGER

The Jagdtiger – *Hunting Tiger* – was the heaviest and most powerfully armed of all German tank destroyers of World War II. It was based upon the Tiger II tank, but the turret was replaced by a fixed casement with armour up to 250mm thick and mounting a 128mm Pak 44 anti-tank gun (Pak is short for Panzerabwehrkanone – anti-tank gun and 44 indicates the year the weapon was designed). Although of considerable weight the 128mm weapon was not substantially better than the 88mm gun of the Tiger II at short rnages, but it was superior at long range and could knock out Allied tanks well beyond their own effective range.

Cost: 440pts (Inexperienced), 550pts (Regular), 660pts (Veteran)

Weapons: One casement-mounted forward facing super-heavy anti-tank gun and one forward facing hull-mounted MMG

Damage Value: 11+ (super-heavy tank)

Special Rules:

- The 128mm Pak 44 was almost as effective at long ranges as at short range – so it does not suffer the –1 penetration penalty when shooting at targets at over half range. It counts its full +7 penetration bonus at all ranges

MARDER

The Marder started life as a conversion of various captured and obsolete vehicles to produce mobile anti-tank support for infantry. Early Marders were often armed with captured Russian guns, but by the late war all used the German 75mm Pak 40 anti-tank gun. The last Aust M version – as described here – featured an open-topped fighting compartment on a Panzer 38t chassis. Because of its weak superstructure and open fighting compartment, we give it a damage value of 7+, as an armoured carrier.

Cost: 132pts (Inexperienced), 165pts (Regular), 198pts (Veteran)

Weapons: One forward facing heavy anti-tank gun and one forward facing hull-mounted MMG

Damage Value: 7+ (armoured carrier)

Special Rules:

- Open-topped

NASHORN

The Nashorn – *rhinoceros* – was built to mount the powerful 88mm KwK43, the same weapon that would eventually be carried by the Tiger II and Jagdpanther. It was a hasty response to the need for mobile heavy anti-tank guns, with its vulnerable open-topped superstructure and light construction that enables it to bear the weight of its mighty gun. Although soon superseded by better designs, the Nashorn soldiered on until the end of the war equipping heavy anti-tank battalions. The Nashorn had no fixed secondary weapons but the crew-carried an MG34 machine gun, which we allow them to make use of if required.

Cost: 212pts (Inexperienced), 265pts (Regular), 318pts (Veteran)

Weapons: One forward facing super-heavy anti-tank gun and one crew-carried MMG with 360-degree arc of fire

Damage Value: 8+ (light tank)

Special Rules:

- Open-topped
- The crew can either shoot the Nashorn's main gun or the MMG, but not both

ELEFANT

The Ferdinand, Elefant – or *Panzerjäger Tiger* – was an ad hoc creation that married the new high velocity 88mm KwK43 with the rejected Porche version of the Tiger tank. It was produced at the same time as the lightly armoured Nashorn but, where the Nashorn was constructed as lightly as possible, the Elefant was made even heavier by the addition of a further 100mm of frontal armour, making 200mm in all. With all this extra weight the Elephant was rendered unreliable, unmanoeuvrable and slow. The Elefant's mechanical components were under such strain that operational reliability was severely compromised, and this is represented in the game by the special rule given below. Production was limited to a single run of under a hundred vehicles, all of which were completed in 1943. Elefant equipped units continued to fight on the Russian front and in Italy until the end of the war.

Cost: 408pts (Inexperienced), 510pts (Regular), 612pts (Veteran)

Weapons: One casement-mounted forward facing super-heavy anti-tank gun and one forward facing hull-mounted MMG

Damage Value: 11+ (super-heavy tank)

Special Rules:

- Slow
- If the Elefant suffers one or more pin markers as a result of an enemy attack it automatically suffers one further pin marker in addition, such is its extreme operational unreliability

TOP SECRET

Sylvester Stadler commanded the Panzer Grenadier Regiment 'Der Führer' at the battle of Kursk. He witnessed an unusual clash between 50 Soviet T-34 tanks and 26 German T-34s captured at Karkov. The German T-34s, repainted in German camouflage and conspicuously marked with large black crosses, quickly gained the upper hand over their creators. According to Stadler all 50 enemy tanks were set ablaze. He says, 'The Soviet tanks each had a barrel of fuel attached to its back. These could be set on fire by a well-aimed shot, and shortly after the whole tank exploded.'

HETZER

The Hetzer – or Jagdpanzer 38t to give it its proper designation – was a small sized and cheap alternative to the bigger tank destroyers such as the Jagdtigers and Jagdpanther. It carried a relatively powerful 75mm gun – a version of that used on the Stug III. The little vehicle's frontal armour was as good as that of most Allied tanks although its side armour was relatively weak. As well as the forward facing hull-mounted main armament, the Hetzer had a remotely operated machine gun that could be fired by the crew from within the vehicle.

Cost: 188pts (Inexperienced), 225pts (Regular), 262pts (Veteran)

Weapons: One hull-mounted forward facing heavy anti-tank gun and one remotely operated MMG with 360-degree arc of fire

Damage Value: 9+ (medium tank)

Special Rules:

- The Hetzer's weak side armour means that all shots to the side of the vehicle count as to the rear with a +2 penetration modifier

SELF-PROPELLED ARTILLERY

German self-propelled artillery tended to be conversions of existing vehicles, often those captured from the enemy or otherwise obsolete. This pragmatic approach produced a hotchpotch of self-propelled artillery that undoubtedly served its purpose of providing mobile fire support .

WESPE

The Wespe – German for *Wasp* – was an adaptation of the Panzer II chassis to take a 105mm field gun in an open-topped superstructure. They proved very successful and were allocated to armoured artillery battalions with Panzer divisions alongside the heavier Hummel.

German counter-attack on D-Day, by Peter Dennis © Osprey Publishing Ltd. Taken from Command 5: Erwin Rommel.

Cost: 116pts (Inexperienced), 145pts (Regular), 174pts (Veteran)

Weapons: One forward facing medium howitzer and one crew-carried MMG with 360-degree arc of fire

Damage Value: 8+ (light tank)

Special Rules:

- Open-topped
- The crew can either shoot the Wespe's main gun or the MMG, but not both

HUMMEL

The Hummel – German for *Bumble Bee* – carried a 150mm artillery piece on a chassis that combined elements of existing Panzer III and Panzer IV running gear. This same chassis was also used for the Nashorn tank destroyer.

Cost: 148pts (Inexperienced), 185pts (Regular), 222pts (Veteran)

Weapons: One forward facing heavy howitzer and one crew-carried MMG with 360-degree arc of fire

Damage Value: 8+ (light tank)

Special Rules:

- Open-topped
- The crew can either shoot the Hummel's main gun or the MMG, but not both

STURMHAUBITZE 42

From 1943 the Sturmgeschutz was increasingly used in an anti-tank role, and this prompted the development of a new infantry support version – the Sturmhaubitze 42 or StuH 42. The new assault gun was fitted with a shortened 105mm howitzer instead of the 75mm gun fitted to Stugs during the early days of the war.

Cost: 152pts (Inexperienced), 190pts (Regular), 228pts (Veteran)

Weapons: One casement-mounted forward facing medium howitzer and remotely operated MMG with 360-degree arc of fire

Damage Value: 9+ (medium tank)

PANZERWERFER 42

The SdKfz 4 was an armoured version of the Maultier design – basically a half-track truck with an armoured body. The SdKfz 4/1 Panzerwerfer 42 mounted a 150mm Nebelwerfer multiple rocket launcher whilst the basic SdKfz 4 truck acted as an ammunition carrier. This produced an effective mobile multiple rocket launcher that served with Nebeltruppen on the Eastern and Western Fronts.

Cost: 92pts (Inexperienced), 115pts (Regular), 138pts (Veteran)

Weapons: One forward facing Nebelwerfer multiple rocket launcher (heavy mortar)

Damage Value: 7+ (armoured carrier)

Options:

- The multiple rocket launcher can be replaced with one forward facing pintle-mounted MMG covering the front arc (SdKfz 4 ammunition carrier version). This reduces the point value by 55pts

Special Rules:

- Indirect fire
- HE (2D6)
- Multiple launcher
- Open-topped
- Flak (if MMG ammunition carrier option chosen)

ANTI-AIRCRAFT VEHICLES

The Germans employed a great many mobile anti-aircraft guns and a large proportion of the German war effort was committed to air defence. Mobile anti-aircraft weapons often made use of existing vehicle chassis as in the case of the examples given here.

FLAKPANZER IV

As the Germans lost air superiority to the Allies their ground forces become ever more vulnerable to attack from enemy aircraft. The Flakpanzer IV was an attempt to provide the anti-aircraft platoons of Panzer Divisions with an answer. There were several versions, with different armaments mounted in different ways. The Mobelwagen (Furniture Van – so called because of its boxy superstructure) had a single 37mm gun on an open-topped platform. The Wirbelwind (Whirlwind) had an open turret with quad-mounted 20mm guns. The Ostwind replaced the 20mm guns with a single 37mm gun and extra machine gun – making it equally useful against enemy troops and light vehicles. The Kugelblitz (Ball lightning) had twin mounted 30mm guns in a closed turret – but the war ended before it could be introduced.

Cost: 130pts (Inexperienced), 160pts (Regular), 190pts (Veteran)

Weapons: One platform-mounted heavy autocannon with 360-degree arc of fire and one forward facing hull-mounted MMG

Damage Value: 9+ (medium tank)

Options:

- May exchange heavy autocannon for 4x light autocannon in open turret for +80pts
- May exchange heavy autocannon for heavy autocannnon and MMG in open turret for +10pts
- May exchange heavy autocannon for twin heavy autocannon (30mm) in closed turret for +45pts

Special Rules:

- Open-topped vehicle – unless the twin 30mm Kugelblitz option is taken in which case the vehicle is fully enclosed
- Flak

SDKFZ 7 FLAK HALF-TRACKS

The SdKfz 7 was adapted as an anti-aircraft platform to carry 20mm or 37mm anti-aircraft guns. It made a very effective and mobile anti-aircraft defence vehicle.

Cost: 48pts (Inexperienced), 60pts (Regular), 72pts (Veteran)

Weapons: One platform-mounted heavy autocannon (37mm Flak 38) with 360-degree arc of fire

Damage Value: 6+ (soft-skin carrier)

Options:

- May add platform-mounted quadruple light autocannon (4 x20mm Kwk 38) with 360-degree arc of fire for +80pts

Special Rules:

- Flak

ARMOURED CARS

German armoured cars are immediately recognisable both in the six-wheeled and eight-wheeled configurations. They were primarily designed for reconnaissance duties, but despite this were produced with a variety of weaponry that makes them especially valuable as support for infantry. Some half-tracks were also converted to undertake the same role, and these are also included in this section.

SDKFZ 222 LIGHT ARMOURED CAR

The SdKfz 222 was a light armoured car used for scouting and as a radio car (Panzerfunkwagen). It mounted a 20mm gun alongside an MG34 machine gun. The open turret enabled the main gun to be used in an anti-aircraft role. Armoured cars formed part of the reconnaissance battalions of Panzer divisions. They performed well on good roads but poorly in the extreme conditions of the Russian front where their role was often undertaken by armed half-tracks instead.

Cost: 71pts (Inexperienced), 95pts (Regular), 109pts (Veteran)

Weapons: One turret-mounted light autocannon and co-axial MMG

Damage Value: 7+ (armoured car)

Special Rules:

- Recce
- Open-topped
- Flak

SDKFZ 234 HEAVY ARMOURED CAR

The SdKfz 234 series were eight wheeled armoured cars used for armed reconnaissance ahead of a formation's line of advance – a role analogous to that of light cavalry in an earlier age. There were four main versions with differing weapons. The 234/1 carried a 20mm gun and machine gun in an open turret, the 234/2 – *Puma* – replaced this arrangement with a fully enclosed turret bearing a KwK 30 50mm gun, the 234/3 mounted a short-barrelled KwK 37 75mm gun in a fixed open-topped superstructure, whilst the 234/4 mounted a long barrelled 75mm Pak 40 into a fixed open-topped superstructure.

SdKfz 234/2 Puma armoured car

SdKfz 222 armoured car

All four variants are covered in the details below with the 234/1 given as basic type.

Cost: 71pts (Inexperienced), 95pts (Regular), 109pts (Veteran)

Weapons: One open turret-mounted light autocannon and co-axial MMG

Damage Value: 7+ (armoured car)

Options:

- Exchange open turret and armament for enclosed turret and medium anti-tank gun with co-axial MMG (Puma) for +50pts
- Exchange open turret and armament for fixed forward facing light howitzer (short 75mm) for +15pts
- Exchange open turret and armament for fixed forward facing heavy anti-tank gun (long 75mm) for +75pts

Special Rules:

- Recce vehicle
- Front and rear drive – the 234 series can be driven from both front and rear enabling it to execute a full speed run rate reverse
- Open-topped – unless the Puma option is taken in which case there is an enclosed turret

SDKFZ 250/9 AND 10 HALF-TRACK

The SdKfz 250 half-track was a shortened version of the Hanomag that was used both as a troop carrier and in a scouting or reconnaissance role. The versions covered here are the 250/9 armed with a 20mm cannon in an open-topped turret, and the 250/10 armed with a 37mm anti-tank gun.

Cost: 80pts (Inexperienced), 100pts (Regular), 120pts (Veteran)

Weapons: One open turret-mounted light autocannon and co-axial MMG

Damage Value: 7+ (armoured carrier)

Options:

- May exchange turret and armament for forward facing light anti-tank gun (37mm Pak36 or 28mm sPzB 41) for +15pts

Special Rules:

- Open-topped
- Recce vehicle

TRANSPORTS AND TOWS

German mechanised units are called Panzer Grenadiers and were amongst the elite of the whole army. The vehicle most often associated with these troops is the SdKfz 251 Hanomag armoured personal carrier. The Germans had a large range of half-tracked vehicles as transports and tows, and converted even soft-skin lorries to half-tracks to enable them to cope with conditions on the Russian front.

SDKFZ 251 HANOMAG HALF-TRACK

The Hanomag – named after its manufacturer Hannoversche Maschinenbau AG – was the ubiquitous German half-track used throughout World War II to transport mechanised infantry units – *panzergrenadiers*. The carrier version was adapted to various roles including the addition of close support weapons such as anti-tank guns, flame throwers, anti-aircraft guns, and even rockets. Engineering variants included bridge layers and telephone line layers, whilst further examples were built as radio cars, ambulances and command vehicles. The German designation for the carrier SdKfz 251 was short for *special ordnance vehicle*, and the standard infantry carrier version was the 251/1 which was able to carry up to 12 infantry in addition to its own crew. It was armed with a single pintle-mounted MG34 machine gun, and sometimes more. Platoon commanders' vehicles carried a 37mm gun (251/10). Sometimes the anti-aircraft version (251/17) with 20mm autocannon was used as a substitute.

SdKfz 251/10 halftrack

Cost:	67pts (Inexperienced), 84pts (Regular), 101pts (Veteran)
Weapons:	One forward facing pintle-mounted MMG covering the front arc
Damage Value:	7+ (armoured carrier)
Transport:	Up to 12 men in basic version – up to 4 men with either light anti-tank gun or autocannon options added
Tow:	Light, medium or heavy anti-tank gun; light or medium howitzer

Options:

- May add one additional rear facing pintle-mounted MMG covering rear arc for +10pts
- May exchange MMG for one forward facing light anti-tank gun (37mm Pak 36) for +40pts
- May exchange MMG for one pedestal-mounted light autocannon (Kwk 38) with 360-degree arc for +20pts

Special Rules:

- Open-topped
- Flak (pintle-mounted MMGs/light autocannons)

SDKFZ 250/1 HALF-TRACK

The SdKfz 250 half-track was a shortened version of the Hanomag built primarily as a reconnaissance vehicle and as transport for forward observers, scouts and HQ units. Like the Hanomag it was built in a bewildering number of variants including cable layers, ammunition carriers, and radio cars. It carried six men in total including driver and co-driver – and we have allowed up to five men to be carried to enable the 250 to transport a half-sized squad assuming such troops double up as crew as needed.

Cost:	64pts (Inexperienced), 80pts (Regular), 96pts (Veteran)
Weapons:	One forward facing pintle-mounted MMG covering the front arc
Damage Value:	7+ (armoured carrier)
Transport:	Up to 5 men
Tow:	Light howitzer; light or medium anti-tank guns

Options:

- May add one additional rear facing pintle-mounted MMG covering rear arc for +10pts

Special Rules:

- Open-topped
- Flak (pintle-mounted MMGs)

Panzergrenadiers debus from their halftrack

SDKFZ 7 HALF-TRACK

The SdKfz 7 was a half-track artillery tractor used to tow heavy guns such as the 88mm Flak and anti-tank guns and 150mm artillery piece. It was not generally used as a troop carrier as its ability to shift heavy loads made it more suitable as a tow, but it was capable of carrying up to 12 men in addition to its driver.

Cost: 35pts (Inexperienced), 44pts (Regular), 53pts (Veteran)
Weapons: None
Damage Value: 6+ (soft-skin carrier)
Transport: Up to 12 men
Tow: Any anti-tank gun or howitzer

TRUCK

The Germans made use of a great many different types of truck, including those captured from their enemies. Perhaps the most well known is the Opel Blitz, although the six-wheeled Krupp-Protze was also widely used and is instantly recognisable. We shall not differentiate between one type of truck and another. Trucks were sometimes armed with a pintle-mounted machine gun, primarily for anti-aircraft defence, and we include the option here.

Cost: 31pts (Inexperienced), 39pts (Regular), 47pts (Veteran)
Weapons: None
Damage Value: 6+ (soft-skin)
Transport: Up to 12 men
Tow: Light howitzer; light or medium anti-tank gun

Options:

- May have a pintle-mounted MMG with 360-degree arc of fire for +15pts

Special Rules:

- Flak (pintle-mounted MMG if included)

MAULTIER HALF-TRACK

Maultier trucks – German for *Mule* – were half-track versions of trucks and could be based upon Opel Blitz, Mercedes or German Ford truck designs. They were built when it was found ordinary trucks couldn't negotiate the thick mud encountered on the Eastern Front, and were simply converted from existing trucks and obsolete track components from the Panzer I. Trucks were sometimes armed with a pintle-mounted machine gun, primarily for anti-aircraft defence, and we include the option here.

Cost:	35pts (Inexperienced), 44pts (Regular), 53pts (Veteran)
Weapons:	None
Damage Value:	6+ (soft-skin carrier)
Transport:	Up to 12 men
Tow:	Light howitzer; light or medium anti-tank gun

Options:

- May have a forward facing pintle-mounted MMG covering the front arc for +10pts

Special Rules:

- Flak (pintle-mounted MMG if included)

KUBELWAGEN

The Kubelwagen was the military version of the Volkswagen and proved a reliable, rugged and much-liked little workhorse that saw action on every front. Although it lacked the four-wheel drive of Allied jeeps this was compensated for to some extent by its lighter construction, locking differential and good ground clearance. It could carry four men – three plus a driver – sufficient to carry a weapons team or HQ unit.

Cost:	17pts (Inexperienced), 21pts (Regular), 25pts (Veteran)
Weapons:	None
Damage Value:	6+ (soft-skin)
Transport:	Up to 3 men

Options:

- Can have a pintle-mounted MMG with a 360-degree arc for +15pts

SCHWIMMWAGEN

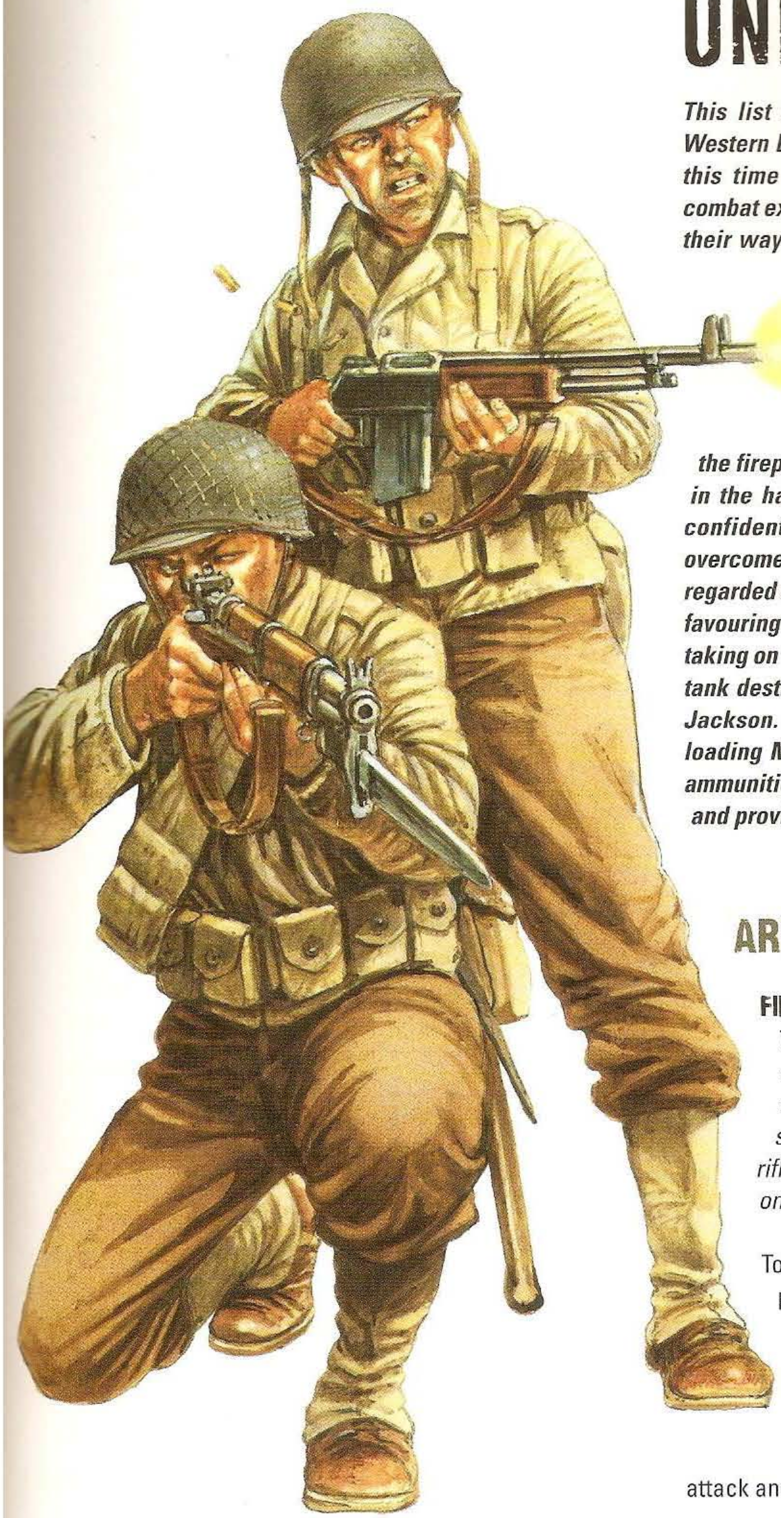
The Schwimmwagen was adapted from the Kubelwagen to produce a four-wheel drive amphibious vehicle. It was widely used – and not just in an amphibious role –fulfilling a similar function to jeeps in the Allied armies.

Cost:	21pts (Inexperienced), 26pts (Regular), 31pts (Veteran)
Weapons:	None
Damage Value:	6+ (soft-skin)
Transport:	Up to 3 men
Tow:	Light anti-tank gun

Special Rules:

- Amphibious – can move deep water counting Slow and therefore limited to an advance move

UNITED STATES



This list is based on the American forces that fought in Western Europe from D-Day to the surrender of Germany. By this time the US Army had already gained considerable combat experience in Africa and Italy. The troops who fought their way onto the Normandy beaches were well prepared and equipped, and backed up by a logistical system that was second to none. The standard Allied tank, the M4 Sherman, may have lacked both the firepower and protection of its German adversaries, but in the hands of American crews, and driven onwards by confident generals like Patton, its shortcomings were overcome by sheer verve and aggression. American doctrine regarded tanks as essentially breakthrough weapons, hence favouring a general-purpose tank gun not otherwise ideal for taking on other tanks. That role was left to anti-tank guns and tank destroyers such as the M10, the M18 Hellcat, and M36 Jackson. American infantry were favoured with the self-loading M1 Garand rifle together with a plentiful supply of ammunition, and US troops were generally lavishly equipped and provisioned.

ARMY SPECIAL RULES

FIRE AND MANOEUVRE

The US Army tactical doctrine placed great emphasis on firepower and mobility, and this is reflected in the armament of the standard infantry squad with the self-loading M1 Garand rifle and Browning automatic rifle (BAR), which could be fired effectively by one man on the move.

To reflect this combination of doctrine, armament and plentiful ammunition, US infantry equipped with rifles and BAR do not suffer the –1 to hit penalty for shooting and moving. This means that troops can be given an advance order, move, and then shoot without suffering the usual 'to hit' penalty, making American infantry extremely effective both on the attack and when shifting position in defence.

AIR POWER

From D-Day onwards, Allied air superiority would come to shape the fighting in Western Europe. German forces found their supply routes under constant aerial attack, and fixed defences became prime targets for Allied bombers and staffing aircraft.

An American Air Force Forward Observer can call down two airstrikes during the game instead of one.

TYPES OF UNIT

The list is divided into categories as follows.

1 Infantry	Headquarters units Infantry squads and teams
2 Artillery	Field artillery Anti-tank guns
3 Vehicles	Tanks Tank destroyers Self-propelled artillery Anti-aircraft vehicles Armoured cars Transports and tows

HEADQUARTERS UNITS

Each platoon is centred upon a core that includes a headquarters unit in the form of a First or Second Lieutenant. Other HQ units can be added to the force, including higher-ranking officers, as well as medical unite and supporting observers.

OFFICER

Prior to the invasion of France front-line officers went through vigorous training with their regiments both in the US and Britain, although initially many were obviously lacking in combat experience. Such experience came very quickly for all ranks, and so we allow US officers to be inexperienced, regular or veteran.

Cost: Second Lieutenant
35pts (Inexperienced), 50pts (Regular), 65pts (Veteran)
First Lieutenant
60pts (Inexperienced), 75pts (Regular), 90pts (Veteran)
Captain
95pts (Inexperienced), 110pts (Regular), 125pts (Veteran)

US paratroopers edge through the Normandy bocage

TOP SECRET

Lieutenant Belton Y. Cooper was a member of the American 3rd Armoured Division's maintenance battalion during the campaign in Western Europe. His account of his experiences maintaining, recovering and repairing tanks pulls no punches when it comes to what he thought of the Allies' M4 and M4A1 Shermans: and it wasn't much! His autobiographical book *Death Traps* offers one of the most informative descriptions of what tank warfare was like in World War II. Cooper estimates the qualitive advantage of the German tanks as five to one. He explains how the Germans were able to knock out Shermans at distances well beyond the effective range of their own 75mm guns. He goes on to cite examples where German tanks shot clean through brick walls to destroy Shermans! In one instance a German tank managed to shoot clean through one Sherman to knock out another beyond it!

Major
135pts (Inexperienced), 150pts (Regular), 165pts (Veteran)

Team: 1 officer and up to 2 further men

Weapons: Pistol, submachine gun, or rifle/carbine as depicted on the models

Options:

- The officer may be accompanied by up to 2 men at a cost of +7pts (Inexperienced),+10pts per man (Regular) or +13pts per man (Veteran)

MEDIC

The field medic presents the wounded soldier with his best chance of surviving serious injury and can ensure that lightly wounded soldiers are returned to fighting fitness as rapidly as possible. Junior medical staff such as stretcher-bearers can accompany medics in the field. All medical staff are rated as veteran. In theory medical staff were obliged to go unarmed under the Geneva Convention, but in practice a pistol was often carried.

Cost: Medic 30pts (Veteran)

Team: 1 medic and up to 2 further men

Weapons: Pistol or none as depicted on the model

Options:

- The medic may be accompanied by up to 2 men at a cost of +13pts per man

FORWARD OBSERVER

Forward observers are liaison officers responsible for coordinating the fire of remote heavy artillery batteries or aircraft strikes. They are likely to be accompanied by a radio operator and other immediate attendants. We rate these officers as regular or veteran, those of lesser ability being unlikely to find themselves in such a position. Note that the US Air Force Forward Observer can call two airstrikes during the game to represent overwhelming American air superiority.

Cost: Artillery Forward Observer
100pts (Regular), 115pts (Veteran)
Air Force Forward Observer
75pts (Regular), 90pts (Veteran)

Team: 1 Forward Observer and up to 2 further men

Weapons: Pistol, submachine gun, rifle/carbine, as depicted on the models

Options:

- The observer may be accompanied by up to 2 men at a cost of +10pts per man (Regular) or +13pts per man (Veteran)

INFANTRY SQUADS AND TEAMS

The average American soldier was keen to do his bit to defend his country and uphold its democratic values. Vast numbers of recruits came through boot camp to join those already fighting, and hard physical training combined with plentiful and well-made equipment meant they usually hit the ground running. Although sometimes lacking in individual experience, by this

Semper Fi – the US Marine Corps let rip

TOP SECRET

Staff Sergeant Lafayette Pool was the most successful tank commander on the Western Front with 12 tank kills and well over 200 other vehicles to his credit. He was a demanding taskmaster who trained his crew to a state of efficiency that overcame the shortcomings of the Sherman tanks from which they fought. He kept the same highly trained and motivated crew throughout his career. His tanks always carried the name: 'In the Mood'. Habitually fighting from the front, Pool had several tanks shot from under him. The first fell to panzerfaust attack as his unit advanced from the Normandy beaches. During the fighting around the Falaise Gap he lost another tank to a German bomber. Luckily he and his crew survived on both these occasions. Somewhat inconveniently for tankers, both Pool and his driver, Wilbert 'Baby' Richards, suffered from claustrophobia to the extent that they would keep their respective hatches open even in the thick of action. Pool rode his tank from the turret hatch like a 'bucking bronco', exposed to danger; relying upon his wits. In September 1944 south of Aachen his unit was leading the attack through the German Westwall defences. Spotting an enemy anti-tank gun he brought the tank's main weapon to bear. Unluckily his regular loader was not with him that day, and the replacement managed to jam a 76mm round in the breach. With his gun out of action, Pool yelled, 'Back up Baby!' and Richards backed up just as the first shell struck home. Pool was blown out of the hatch and thrown clear, smashing his right leg as he landed. Unaware that they had lost their commander, the crew continued to back the tank up, still under fire, until 'In The Mood' reversed into a ditch and rolled over. Willis 'Groundhog' Oller, the team's gunner, suffered injuries to his leg, but he escaped from the overturned vehicle with the rest of the crew. Pool survived but lost his right leg – his war was over! As the medics injected him with morphine and stretchered him away he suddenly turned and shouted, 'Somebody take care of my tank!'

stage in the war it would be wrong to rate any American troops as 'green', with raw troops now often benefiting from the leadership of experienced men and officers.

INFANTRY SQUAD

The American infantry squad had an authorised strength of 12 men: an NCO (usually a Staff Sergeant or Sergeant) armed with a submachine gun, M1 Garand rifle or carbine; 10 Riflemen carrying M1 Garand rifles; and a man armed with BAR (Browning Automatic Rifle). This could be divided down and would often be under strength, and we allow the unit to be built up from 5 men to represent this. Anti-tank weaponry took the form of rifle grenades fired by a special grenade launcher attachment for the Garand, which could also fire fragmentation and smoke grenades. In reality only a portion of men would be armed with the launcher attachment but we allow the entire squad to count as armed with anti-tank grenades for practical purposes.

Cost:	Regular Infantry 50pts
Composition:	1 NCO and 4 men
Weapons:	Rifles

Options:

- Add up to 7 additional men with rifles at +10pts each
- The NCO and up to 1 man can have a submachine gun instead of rifles for +3pts each
- Up to 1 man can have a BAR automatic rifle instead of a rifle for +5pts
- The entire squad can be given anti-tank grenades for +2pts per man

Special Rules:

- Tank hunters (if anti-tank grenades taken).

RANGERS, AIRBORNE OR VETERAN INFANTRY SQUAD

The US Airborne divisions gained a reputation for tenacity in the face of overwhelming odds even when surrounded. The 101st Airborne saw action in multiple battles from D-Day to Berlin. American Rangers – comparable to British Commandos – were given the most dangerous missions, often leading the attack or advancing into position to secure important objectives prior to an attack. They are armed with the same combination of weapons as regular US infantry, though often with a higher portion of automatic weapons and carbines. Rangers and airborne troops also made use of the Gammon bomb against enemy armour.

Cost:	Veteran Infantry 65pts
Composition:	1 NCO and 4 men
Weapons:	Rifles/carbines

Options:

- Add up to 7 additional men with rifles or carbines at +13pts each
- The NCO and up to 4 men can have a submachine gun instead of rifles for +3pts each
- Up to 2 men can have BAR automatic rifles instead of rifles for +5pts each
- The entire squad can be given anti-tank grenades (Gammon bomb) instead for +2pts per man

Special Rules:

- Tank hunters (if anti-tank grenades taken)

INEXPERIENCED INFANTRY SQUAD

With the constant need to replace troops lost in action, raw recruits sometimes outnumbered the more experienced members of a squad or platoon. Though not lacking in confidence, the enthusiasm of these raw troops was not always matched by their ability in the field. Some regiments suffered such heavy losses in early fighting that they were understandably reluctant to rejoin the fight subsequently. To represent these raw units we rate them as inexperienced. These units would be armed in the standard fashion as other US troops.

Cost: Inexperienced Infantry 35pts
Composition: 1 NCO and 4 men
Weapons: Rifles
Options:

- Add up to 7 additional men with rifles at +7pts each
- The NCO and up to 1 man can have a submachine gun instead of rifles for +3pts each
- Up to 1 man can have a BAR automatic rifle instead of a rifle for +5pts
- The entire squad can be given anti-tank grenades for +2pts per man

Special Rules:

- Tank hunters (if anti-tank grenades taken)

.30 CAL MEDIUM MACHINE GUN TEAM

The M1919 Browning was a multi-purpose medium machine gun that appeared in both air and water-cooled versions. Each infantry company included a platoon of machine guns, which would be used to provide fire support to individual infantry platoons when required. The relatively large number of these weapons available at company level means that a US army can include a higher proportion of medium machine guns than other armies. As noted below, up to three machine guns can be included in each reinforced platoon, rather than just one.

Cost: 35pts (Inexperienced), 50pts (Regular), 65pts (Veteran)
Team: 3 men
Weapon: 1 MMG
Special Rules:

- Team weapon
- Fixed
- Extra selection – you may take up to 3 .30 Cal MMGs as 1 selection in each reinforced platoon

.50 CAL HEAVY MACHINE GUN TEAM

The M2 Browning '50 cal' machine gun was fitted to a wide variety of vehicles and airplanes during World War II. It was often used to provide protection against enemy aircraft, but it was effective against enemy half-tracks and armoured cars. Although too heavy to be fully mobile, the dual-purpose tripod variant was a very effective defensive weapon.

Cost: 49pts (Inexperienced), 70pts (Regular), 91pts (Veteran)
Team: 4 men
Weapon: 1 HMG
Special Rules:

- Team weapon
- Fixed
- Flak

BAZOOKA TEAM

This recoilless anti-tank weapon fired a rocket-propelled grenade with a shaped charge that could penetrate up to 60mm of armour. Using a Bazooka required some courage, as it was necessary to get close to the target to get a clean hit. When the bazooka fired it left a clearly visible smoke trail giving away the bazooka's position to return fire.

Cost: 42pts (Inexperienced), 60pts (Regular), 78pts (Veteran)
Team: 2 men
Weapons: 1 bazooka
Special Rules:

- Team weapon
- Shaped charge

SNIPER TEAM

US sniper training before World War II was non-existent. When it became apparent that snipers were needed training began in earnest. Snipers could be armed with the M1 Garand but the bolt-action Springfield was often favoured for its longer range and accuracy – in both cases rifles carried telescopic sights.

Cost: 50pts (Regular), 65pts (Veteran)
Team: 2 men
Weapons: 1 rifle
Special Rules:

- Team weapon
- Sniper

FLAMETHROWER TEAM

The M2-2 and variant flamethrowers were used to clear infantry from buildings and fortifications. It had an effective range of only 20 metres, which meant operators had to get dangerously close to their targets to use it. The addition of higher-powered flamethrowers on vehicles meant that the need to expose flamethrower teams lessened and eventually they became obsolete.

Cost: 50pts (Regular), 65pts (Veteran)
Team: 2 men
Weapons: 1 infantry flamethrower
Special Rules:

- Flamethrower
- Team weapon

60MM LIGHT MORTAR

The US M2 60mm mortar was developed to provide a lightweight alternative to the company-level fire support offered by the 81mm M1 mortar. As such it bridged the gap between hand grenades or rifle-propelled grenades and the 81mm mortar. It did this job very effectively, outdistancing the 50mm German mortar and firing a heavier bomb.

Cost: 24pts (Inexperienced), 35pts (Regular), 46pts (Veteran)
Team: 2 men
Weapon: 1 light mortar
Special Rules:

- Team weapon
- Indirect fire
- HE (D3)

81MM MEDIUM MORTAR

The 81mm M1 mortar was developed from a French design. The 136-pound M1 was designed to be man-portable when broken down into three components, the tube, the bipod mount, and the round base plate, each weighing about 45 pounds. The rectangular base plate allowed for firing in any direction. It could be used at ranges of 200 to over 3,000 yards with the M43A1 HE ammunition.

Cost: 35pts (Inexperienced), 50pts (Regular), 65pts (Veteran)
Team: 3 men
Weapon: 1 medium mortar
Options:

- May add Spotter for +10pts

Special Rules:

- Team weapon
- Fixed
- Indirect fire
- HE (D6)

107MM HEAVY MORTAR

Before World War II this 4.2 inch mortar was designed to fire chemical rounds. Upon its entry into the war the US Army quickly developed a HE round that could be fired to ranges in excess of 4,000 yards. These heavy mortars functioned as mobile artillery and would not normally find themselves engaged in close actions.

Cost: 46pts (Inexperienced), 65pts (Regular), 84pts (Veteran)
Team: 4 men
Weapon: 1 heavy mortar
Options:

- May add Spotter for +10pts

Special Rules:

- Team weapon
- Fixed
- Indirect fire
- HE (2D6)

FIELD ARTILLERY

The American army was well provided with artillery from the lightweight 75mm pack howitzer to the larger 105mm and 155mm howitzers including the famous 'Long Tom'. These were towed by a variety of prime movers including heavy trucks and artillery tractors.

75MM HOWITZER

The 75mm howitzer was used primarily by US Airborne divisions, each with somewhere between 36 and 60 pieces. They were used to provide close-range infantry support in

US Airborne pack howitzer

US Airborne fire support blazing away in Holland

most operations. Its design allowed it to be ideally suited to all terrains and environments, being able to be pulled by jeeps or even pack animals.

Cost: 40pts (Inexperienced), 50pts (Regular), 60pts (Veteran)

Team: 3 men

Weapons: 1 light howitzer

Special Rules:

- Gun shield
- Team weapon
- Fixed
- Howitzer
- HE (D6)

105MM HOWITZER

The 105mm M2A1 (M101A1) howitzer was the standard light field howitzer for the United States in World War II. It had a range of over 12,000 yards as well as being remarkably accurate and having a powerful punch. Like the 75mm pack howitzer the later variant had a split trailer allowing it to be used by Airborne forces.

Cost: 60pts (Inexperienced), 75pts (Regular), 90pts (Veteran)

Team: 4 men

Weapon: 1 medium howitzer

Options:

- May add Spotter for +10pts

Special Rules:

- Gun shield
- Team weapon
- Fixed
- Howitzer
- HE (2D6)

155MM HOWITZER

The 155mm M1 and M2 heavy howitzer was widely known as the 'Long Tom'. This heavy howitzer was designed to provide long-range artillery support. A later variant made towing the piece a lot easier. The new split-trail carriage featured four road wheels, each mounting two tires. The wheels could be lifted, allowing the gun to rest on a firing platform. This made the gun very stable and thus more accurate.

Cost: 92pts (Inexperienced), 115pts (Regular), 138pts (Veteran)

Team: 5 men

Weapon: 1 heavy howitzer

Options:

- May add Spotter for +10pts

Special Rules:

- Gun shield
- Team weapon
- Fixed
- Howitzer
- HE (3D6)

ANTI-TANK GUNS

By the later war the 37mm anti-tank gun had been replaced by the 57mm gun, a version of the British 6pdr, but 37mm weapons continued to be employed as support weapons and had the advantage that they could be towed by a jeep or light truck.

37MM ANTI-TANK GUN

The 37mm Gun M3 was the first dedicated anti-tank gun fielded by United States forces. Introduced in 1940, it became the standard anti-tank gun of the US infantry with its small size enabling it to be pulled by a jeep. It quickly became obsolete with the general increase in the thickness of armour on German tanks, but even during the period under consideration it was still used widely in support of infantry, using HE rounds as an anti-personnel weapon.

Cost: 40pts (Inexperienced), 50pts (Regular), 60pts (Veteran)

Crew: 2 men

Weapon: Light anti-tank gun

Special Rules:

- Gun shield
- Team weapon
- Fixed

The Screaming Eagles prepare their talons – a US Airborne anti-tank gun lays in wait...

57MM ANTI-TANK GUN

This was the primary anti-tank gun used during the war and was a development of the British 6pdr anti-tank gun. Initially, only armoured piercing ammunition was issued, but following the Normandy campaign high-explosive shells finally reached the battlefield. US Airborne command rejected the need for 57mm guns, saying they were not fit for landing by glider. When they were given the almost identical British 6 pounders they soon found a place in the divisions, calling guns supplied from both sides 57mms.

Cost:	60pts (Inexperienced), 75pts (Regular), 90pts (Veteran)
Crew:	3 men
Weapon:	Medium anti-tank gun

Special Rules:

- Gun shield
- Team weapon
- Fixed

3-INCH ANTI-TANK GUN

The 76.2mm calibre – or 3-inch – gun was developed from an anti-aircraft gun to provide an anti-tank weapon capable of facing heavily armoured German tanks such as the Tiger. American infantry regiments rejected it as too heavy and insufficiently manoeuvrable for their needs, whilst the Tank Destroyer units with which it was equipped preferred the fully mobile M10. In combat, the towed 3-inch gun proved less effective than hoped and this, together with its vulnerability to enemy fire compared to the M10, led to the gradual phasing out of the towed anti-tank guns in US Tank Destroyer units from January 1945 onwards. The usual tow was an M3 half-track.

Cost:	88pts (Inexperienced), 110pts (Regular), 132pts (Veteran)
Crew:	5 men
Weapon:	Heavy anti-tank gun

Special Rules:

- Gun shield
- Team weapon
- Fixed

TANKS

At the start of the war America had little experience of tank production, but considerable expertise at general automotive mass production that would soon be turned to war work. This ability to produce vast quantities of arms and munitions was to prove decisive, and nowhere more so than in the field of tank manufacture. Not only was the sheer rate of production sufficient to equip US and Allied needs, but American built tanks invariably had excellent engines and reliable mechanics, which is more than can be said for many of the tanks in service with other nations at the time. US doctrine called for tanks to be general purpose fighting vehicles, light and fast enough to exploit a breakthrough, and armed with a general purpose gun to support infantry. This thinking led to the Sherman – the principal tank of the late war – being under-gunned compared to German tanks which in theory the Sherman was never designed to confront (that role being left to specialised tank destroyer units).

M5 STUART

US tank battalions included three companies of M5 light tanks for reconnaissance purposes and infantry support. With only thin armour and a 37mm gun the M5 was now hopelessly outclassed by German tanks, but it continued to serve until the end of the war and was much liked for its reliability. It was also used as the basis for numerous variants, including command tanks, turretless reconnaissance versions, and various gun carriages.

Cost:	108pts (Inexperienced), 135pts (Regular), 162pts (Veteran)
Weapons:	One turret-mounted light anti-tank gun with co-axial MMG and forward facing hull-mounted MMG
Damage Value:	8+ (light tank)

Options:

- May have additional pintle-mounted HMG on top of turret for +25pts

Special Rules:

- Flak (pintle-mounted HMG if fitted)

M24 CHAFFEE

The M24 was designed to replace the M5 and provide a light tank with a more powerful 75mm gun. As a more modern and better-armed vehicle it was well liked by its crews although it remained vulnerable to German anti-tank weapons.

Cost:	124pts (Inexperienced), 155pts (Regular), 186pts (Veteran)
Weapons:	One turret-mounted medium anti-tank gun with co-axial MMG and forward facing hull-mounted MMG
Damage Value:	8+ (light tank)

Options:

- May have additional pintle-mounted HMG on top of turret for +25pts

Special Rules:

- Flak (pintle-mounted HMG if fitted)
- HE – instead of causing D2 HE hits an HE shell causes D6 hits (75mm gun tanks)

SPECIAL RULE: CULIN HEDGEROW CUTTER

Sgt Curtis Grubb Culin III served with the 102nd Cavalry Reconnaissance Squadron during World War II. Inspired by the sight of great steel chevaux de fries (huge iron crosses left to hamper tanks and landing craft) left on the beaches by the Germans at Normandy, he had them fixed like giant knives onto the front of Sherman tanks. Such a simple idea was quickly copied, enabling tanks to clear large hedges and make a path through otherwise impenetrable hedgerows.

Any tank so modelled may add a Culin Hedgerow Cutter at the cost of 10pts per model. A model so equipped may move at *advance* rate through any bocage or hedgerow or comparable obstacle that is otherwise rated impassable to vehicles. As it does so it automatically creates a gap passable to any tracked vehicles moving at *advance* rate.

M4 SHERMAN 75MM

The M4 Sherman was very reliable, easily maintained and made in huge quantities in a number of different production versions. It quickly became the standard tank of the US and British armies and over 55,000 were produced. All Shermans deployed in Normandy in June 1944 were equipped with 75mm guns – a general purpose weapon developed from a field gun. This gun lacked the armour penetration of German anti-tank guns of the same calibre, but it had an excellent high explosive shell and even an anti-personnel canister round for close range fire support, although this saw more use in the Pacific Theatre. Shermans equipped with 105mm howitzers were also available to provide close fire support and smoke, and these are given here as an option.

Cost: 156pts (Inexperienced), 195pts (Regular), 134pts (Veteran)

Weapons: One turret-mounted medium anti-tank gun with co-axial MMG and forward facing hull-mounted MMG

Damage Value: 9+ (medium tank)

Options:

- May add a pintle-mounted HMG on the turret for +25pts
- May exchange 75mm medium anti-tank gun for 105mm medium howitzer at no extra cost

Special Rules:

- Flak (pintle-mounted HMG if fitted)
- Easily catches fire: if a roll on the vehicle damage table results in the vehicle catching fire add D3 pin markers rather than just 1 before taking a morale test

- HE – instead of causing D2 HE hits an HE shell causes D6 hits (75mm gun tanks)

M4 SHERMAN 76MM

The need for an up-gunned Sherman was becoming increasingly apparent even before the invasion of Europe. To this end a new 76mm anti-tank gun had been developed that was designed to have a comparable performance to the German Kwk40. Although the US already possessed a weapon of this calibre – the 76mm M7 or '3-inch' gun – this was too heavy and cumbersome to fit into a tank turret. The new gun, fitted into a new and larger turret, enabled US crews to confront their adversaries on more equal terms. However, despite this, the weapon was not universally liked – lacking the powerful high-explosive round of the 75mm gun.

Cost: 188pts (Inexperienced), 235pts (Regular), 282pts (Veteran)

Weapons: One turret-mounted heavy anti-tank gun with co-axial MMG and forward facing hull-mounted MMG

Damage Value: 9+ (medium tank)

Options:

- May add a pintle-mounted HMG on the turret for +25pts

Special Rules:

- Flak (pintle-mounted HMG if fitted)
- Easily catches fire: if a roll on the vehicle damage table results in the vehicle catching fire add D3 pin markers rather than just 1 before taking a morale test

M4A3 SHERMAN ASSAULT TANK

A heavy version of the Sherman was a stop-gap measure to provide a heavily armoured assault tank that would support the advance of infantry. It was based on an ordinary Sherman,

US Sherman M4A3 (75

A Sherman is a Para's best friend

the advance of infantry. It was based on an ordinary Sherman, but with up to 4 inches of extra armour welded to the front and hull sides, a turret with 6 inches of armour, and a gun mantlet 7 inches thick. With a standard engine and suspension it is hardly surprising that the heavy tank was considerably slowed down, but this was entirely in accord with its projected role. Initially these tanks had the 75mm gun, but later versions carried the 76mm gun and had improved horizontal volute suspension (HVSS).

Cost:	212pts (Inexperienced), 265pts (Regular), 318pts (Veteran)
Weapons:	One turret-mounted medium anti-tank gun with co-axial MMG and forward facing hull-mounted MMG
Damage Value:	(10+ heavy tank)

Options:

- May add a pintle-mounted HMG on the turret for +25pts
- May exchange 75mm medium anti-tank gun for 76mm heavy anti-tank gun for +35pts

Special Rules:

- Flak (pintle-mounted HMG if fitted)
- Easily catches fire: if a roll on the vehicle damage table results in the vehicle catching fire add D3 pin markers rather than just 1 before taking a morale test
- HE – instead of causing D2 HE hits an HE shell causes D6 hits (75mm gun tanks)
- Slow. A Sherman up-armoured to a heavy tank is slow – its move is reduced to 6" advance and 12" run

M26 PERSHING

The M26 was a heavy tank designed to provide the US army with something comparable in performance to German tanks. It was armed with a powerful 90mm gun and well armoured. Its introduction was delayed whilst production concentrated on the Sherman, and also because of persistent dissent over the need for a tank more heavily armed than the Sherman 76mm. As a result the M26 only entered combat at the very end of the war.

Cost:	316pts (Inexperienced), 395pts (Regular), 474pts (Veteran)
Weapons:	One turret-mounted super-heavy anti-tank gun with co-axial MMG and forward facing hull-mounted MMG
Damage Value:	10+ (heavy tank)

Options:

- May add a pintle-mounted HMG on the turret for +25pts

Special Rules:

- Flak (pintle-mounted HMG if fitted)

TANK DESTROYERS

US tactical doctrine maintained that enemy tanks should be countered by anti-tank guns, whether crew-served weapons such as the 57mm gun or weapons mounted in mobile tank destroyers (TDs). As a result the US army was equipped with a number of tank destroyers armed with effective anti-tank guns in open lightly armoured turrets. This arrangement enabled a larger calibre weapon to be carried than in a tank turret, but tank destroyers were not tanks despite their appearance, and armour protection was weak. Tank destroyer crews relied instead upon mobility to 'shoot and scoot', often setting up behind cover from where they could ambush enemy tanks as they approached.

M10 TANK DESTROYER

The M10 was the most common tank destroyer in use by the American forces during World War II. It was also used by the British who equipped it with the 17pdr gun as the Achilles. The M10 carried a 76mm (3 inch) anti-tank gun in an open turret.

Cost: 144pts (Inexperienced), 180pts (Regular), 216pts (Veteran)

Weapons: One turret-mounted heavy anti-tank gun

Damage Value: 8+ (light tank)

Options:

- May add a pintle-mounted HMG for +25pts

Special Rules:

- Open-topped
- Flak (pintle-mounted HMG if fitted)

M18 HELLCAT

The M18 Hellcat was designed from the start to be a fast tank destroyer. As a result it was smaller, lighter, and significantly faster, but carried the same 76mm gun as the M10. Because of its lightness and thinner armour we rate it as equivalent to an armoured carrier with a Damage Value of 7+, but recognising its extreme manoeuvrability and ability to extricate itself from trouble we give it the recce special rule.

Cost: 132pts (Inexperienced), 165pts (Regular), 197pts (Veteran)

Weapons: One heavy anti-tank gun in open turret

Damage Value: 7+ (armoured car/carrier)

Options:

- May add a pintle-mounted HMG for +25pts

Special Rules:

- Open-topped
- Flak (pintle-mounted HMG if fitted)
- Recce

M36 JACKSON

Effective as it was, the M10 tank destroyer's main armament was not able to penetrate the new, heavily armoured German tanks now faced by the advancing Allied armies. The answer lay in the development of the 90mm anti-tank gun. This was fitted into a new larger turret, which in turn was fitted to the standard M10 chassis to produce the M36 Jackson. Demand for these new weapons was so great that some M36s were produced using standard Sherman hulls, but the majority used the lightened hulls as shown here.

Cost: 204pts (Inexperienced), 255pts (Regular), 306pts (Veteran)

Weapons: One super-heavy anti-tank gun in open turret

Damage Value: 8+ (light tank)

Options:

- May add a pintle-mounted HMG for +25pts

Special Rules:

- Open-topped
- Flak (pintle-mounted HMG if fitted)

SELF-PROPELLED ARTILLERY

Close support self-propelled artillery was provided by the M7 Priest, which was armed with a 105mm howitzer. Although a few larger M12 howitzer gun carriages were available, US doctrine was to use these for long-range fire support.

M7 PRIEST

The M7 Howitzer Motor Carriage – known by the British as the Priest on account of its distinctive pulpit style machine gun mount – was intended to provide front-line artillery support for fast-moving armoured divisions. It was a very successful vehicle and served during the European campaign. Although built on a Sherman body, with its more lightly armed superstructure and open cab we rate it with a defence value of 7+.

Cost: 128pts (Inexperienced), 160pts (Regular), 192pts (Veteran)

Weapons: One forward facing medium howitzer and one pintle-mounted HMG with 360-degree arc of fire

Damage Value: 8+ (light tank)

Special Rules:

- Open top
- Flak (pintle-mounted HMG)

M8 HOWITZER MOTOR CARRIAGE

The M8 Howitzer Motor Carriage was a conversion based on the M5 light tank replacing the turret with a new open turret mounting a 75mm howitzer. It operated in support of Sherman tanks in Western Europe, although it was gradually replaced by the 105mm-armed Sherman.

Cost: 112pts (Inexperienced), 140pts (Regular), 168pts (Veteran)

Weapons: One light howitzer in open turret and one pintle-mounted HMG on the turret with 360-degree arc of fire

Damage Value: 8+ (light tank)

Special Rules:

- Flak (pintle-mounted HMG)
- Open-topped

M12 GUN MOTOR CARRIAGE

The M12 was a self-propelled artillery piece featuring the 155mm gun on an adapted M3 medium tank chassis. Fewer than 100 of these mobile guns were available for the fighting in Normandy, but they were employed to great effect and occasionally found themselves engaging the enemy with direct fire – a role for which they were never intended. As with the M7, the damage value has been reduced to account for its mostly lightly armoured superstructure and exposed fighting compartment.

Cost: 160pts (Inexperienced), 200pts (Regular), 240pts (Veteran)

Weapons: One forward facing heavy howitzer and one pintle-mounted HMG with 360-degree arc of fire

Damage Value: 8+ (light tank)

Special Rules:

- Flak (pintle-mounted HMG)
- Open-topped

ANTI-AIRCRAFT VEHICLES

The Allies had less need of specialised anti-aircraft vehicles towards the late war as Allied aircraft dominated the skies above Europe. Vehicles intended to provide protection against enemy aircraft were often pressed into service against ground targets.

M16 ANTI-AIRCRAFT CARRIAGE

The M16 was a variant of the M3 that featured a Quad .50 HMG or the Bofors 40mm automatic cannon. They were employed across Europe but are best known for their contribution to the fighting over the Rhine crossing at Oppenheim. As German planes attempted to destroy the bridge over the Rhine and deny it to the enemy, M16s kept the enemy at bay and brought down almost a third of the opposing aircraft.

Cost: 100pts (Inexperienced), 125pts (Regular), 150pts (Veteran)

Weapons: Four turret-mounted HMGs

Damage Value: 7+ (armoured car)

Options:

- May exchange all HMGs with a Bofors 40mm light automatic cannon for a reduction of –50pts

Special Rules:

- Open-topped
- Flak

ARMOURED CARS

In American service armoured cars were used exclusively for command and reconnaissance, fulfilling a role analogous to that of light cavalry in an earlier era. They were not really combat vehicles and were very lightly armoured. Despite this they were capable of holding their own against their German equivalents. Only one armoured car was used by the Americans in the latter part of the war in Europe – the M8. Jeeps and light trucks were often used in the reconnaissance role, as were M5 tanks and M3 Half-tracks.

M8 GREYHOUND ARMOURED CAR

The M8 was a 6-wheel drive light armoured car used in support of armoured columns throughout the campaign in Western Europe. In British service it was known as the Greyhound. Although very lightly armoured this was compensated for by a considerable turn of speed and generally capable performance. Its main armament of the 37mm anti-tank gun was backed up by a .30 calibre co-axial machine gun, and later versions had a .50 calibre machine gun fixed to the open turret.

Cost: 88pts (Inexperienced), 110pts (Regular), 132pts (Veteran)

Weapons: One light anti-tank gun and co-axial MMG in an open turret

Damage Value: 7+ (armoured car)

US M8 Greyhound

Options:

- May add an additional pintle-mounted HMG with 360-degree fire for +25pts

Special Rules:

- Recce
- Flak (pintle-mounted HMG if fitted)
- Open-topped

TRANSPORTS AND TOWS

The American automotive industry was ideally placed to produce jeeps and trucks in vast quantities and a range of sizes from the tiny jeep to massive trucks and tractors capable of towing the largest artillery pieces. A representative section is included here and will prove adequate for our immediate needs.

2½ TON TRUCK

Sometimes referred to as the 'deuce and a half' or 'jimmy', the two and a half ton truck was the standard US general purpose army cargo truck used for haulage as well as troop transportation and as a prime mover for howitzers and anti-tank guns. Trucks were sometimes armed with a pintle-mounted machine gun, primarily for anti-aircraft defence, and we include the option here.

Cost: 31pts (Inexperienced), 39pts (Regular), 47pts (Veteran)
Weapons: None
Damage Value: 6+ (soft-skinned)
Transport: 12 men
Tow: Light, medium or heavy anti-tank gun; light or medium howitzer

Options:

- May have a pintle-mounted MMG for +15pts
- May upgrade the MMG to a HMG for +10pts

Special Rules:

- Flak (pintle-mounted HMG if fitted)

US deuce-and-a-half truck

JEEP

The four-wheel drive jeep was one of the most remarkable and useful vehicles to emerge during the war. It was rugged and adaptable with a powerful engine that enabled it to tow a light anti-tank gun.

Cost: 17pts (Inexperienced), 21pts (Regular), 25pts (Veteran)
Weapons: None
Damage Value: 6+ (soft-skinned)
Transport: 3 men
Tow: Light anti-tank gun

Options:

- May have a pintle-mounted MMG for +15pts, losing all transport capacity
- May upgrade the MMG to a HMG for +10pts

Special Rules:

- Flak (pintle-mounted HMG if fitted)

US Airborne jeeps

DODGE ¾ TON

It is impossible to cover the tremendous variety of small trucks employed by the US army, but the ¾ tonner is worth mention as it formed the basis of many special versions, including as a weapons carrier for machine gun teams, a command car, a tow for the 57mm AT gun, a signals truck, and ambulance amongst others. A lengthened version with an extra axle (the 1½ tonner) also served as a weapons carrier.

Cost: 25pts (Inexperienced), 31pts (Regular), 37pts (Veteran)
Weapons: None
Damage Value: 6+ (soft-skinned)
Transport: 8 men
Tow: Light, medium or heavy anti-tank gun; light or medium howitzer

Options:

- May have a pintle-mounted MMG for +15pts
- May upgrade the MMG to a HMG for +10pts

Special Rules:

- Flak (pintle-mounted HMG if fitted)

M4/M5 ARTILLERY TRACTOR

These similar, fully tracked artillery tractors were designed to pull the 105mm and 155mm guns and similar anti-aircraft guns. They were based on the running gear of obsolete light tanks but were not armoured vehicles. These heavy tractors were not used as tows for anti-tank guns, though they would be perfectly capable of doing so, and so we allow for it should the need arise.

Cost:	12pts (Inexperienced), 15pts (Regular), 18pts (Veteran)
Weapons:	None
Damage Value:	6+ (soft-skinned)
Tow:	Any anti-tank gun; any howitzer

Options:

- May have a pintle-mounted HMG for +25pts

Special Rules:

- Flak (pintle-mounted HMG if fitted)

M3 HALF-TRACK

The M3 and very similar 'export' M5 half-tracks were designed as armoured personnel carriers although they were later adapted to a variety of other roles including weapons carrier, platforms for anti-aircraft guns, and even a tank destroyer.

Cost:	79pts (Inexperienced), 99pts (Regular), 119pts (Veteran)
Weapons:	One pintle-mounted HMG in pulpit mount with 360-degree arc of fire
Damage Value:	7+ (armoured carrier)
Transport:	12 men
Tow:	light, medium or heavy anti-tank gun; light or medium howitzer

Options:

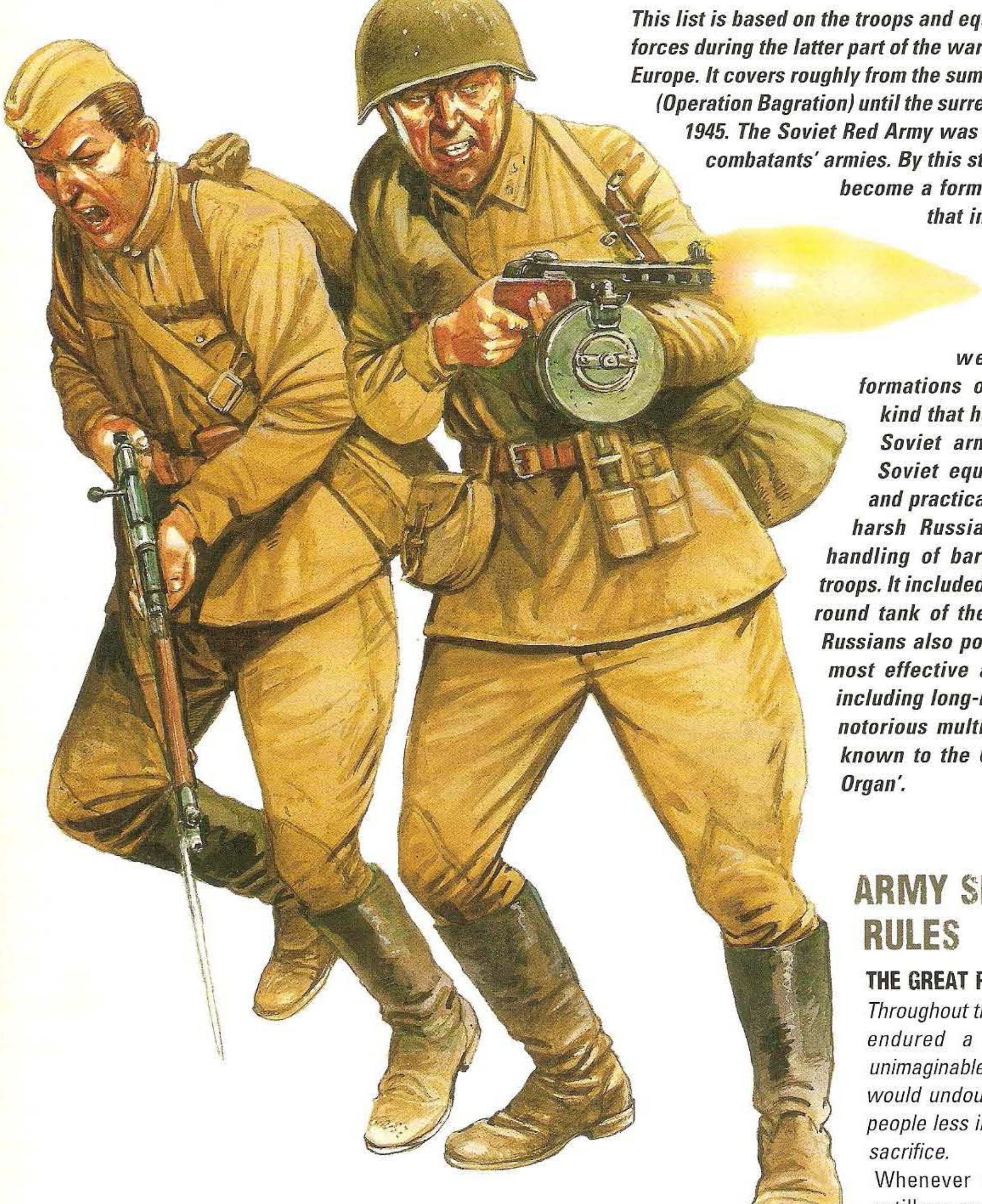
- May add up to two additional pintle-mounted MMGs (one covering the left arc and one covering the right arc) for +15pts each

Special Rules:

- Open-topped
- Flak (pintle-mounted HMG)

US M3 half-track

SOVIET RUSSIA



This list is based on the troops and equipment of the Soviet forces during the latter part of the war in North and Eastern Europe. It covers roughly from the summer offensive of 1944 (Operation Bagration) until the surrender of Berlin in May 1945. The Soviet Red Army was the largest of all the combatants' armies. By this stage in the war it had become a formidable fighting force that included its fair share of elite and experienced troops and commanders, as well as massed formations of conscripts of the kind that had characterised the Soviet army in former years. Soviet equipment was rugged and practical, built to endure the harsh Russian winters and the handling of barely trained Russian troops. It included probably the best all round tank of the war: the T-34. The Russians also possessed some of the most effective artillery of the war, including long-ranged guns, and the notorious multiple-rocket launcher known to the Germans as 'Stalin's Organ'.

ARMY SPECIAL RULES

THE GREAT PATRIOTIC WAR

Throughout the war Russian forces endured a rate of casualties unimaginable in the west and which would undoubtedly have broken a people less inured to hardship and sacrifice.

Whenever a unit of infantry or artillery models fails a morale check and would otherwise be destroyed as a consequence, take the test again and apply this second result. This re-roll applies to all infantry and artillery units, including HQ units that would otherwise be destroyed if they failed a morale check. Note that this rule only applies to infantry and artillery, and not to tanks or other vehicles.

QUANTITY HAS A QUALITY ALL OF ITS OWN

If you have more men than they have bullets, they will eventually run out of ammunition.

To represent the vast manpower available within the Soviet Union, the Russian army gets a free eleven-man strong squad of inexperienced infantry, with all of the possible options you have models for.

TYPES OF UNIT

The list is divided into categories as follows.

1 Infantry	Headquarters units Infantry squads and teams
2 Artillery	Field artillery Anti-tank guns
3 Vehicles	Tanks Tank destroyers Self-propelled artillery Anti-aircraft vehicles Armoured cars Transports and tows

HEADQUARTERS UNITS

Each platoon is built upon a core that includes a headquarters unit in the form of a Senior or Junior Lieutenant (the Russian equivalents to First and Second Lieutenant). Other HQ units can be added to the force, including higher-ranking officers, as well as medical units and supporting observers.

OFFICER

An officer unit consists of the officer himself and can include up to two other men acting as his immediate attendants. Officers can be rated as Inexperienced, Regular or Veteran.

Cost:	Second (Junior) Lieutenant 35pts (Inexperienced), 50pts (Regular), 65pts (Veteran) First (Senior) Lieutenant 60pts (Inexperienced), 75pts (Regular), 90pts (Veteran) Captain (Captain) 95pts (Inexperienced), 110pts (Regular), 125pts (Veteran) Major (Major) 135pts (Inexperienced), 150pts (Regular), 165pts (Veteran)
Team:	1 officer and up to 2 further men
Weapons:	Pistol, submachine gun, or rifle as depicted on the models

Options:

- The officer may be accompanied by up to 2 men at a cost of +7pts (Inexperienced),+10pts per man (Regular) or +13pts per man (Veteran)

MEDIC

The field medic presents the wounded soldier with his best chance of surviving serious injury and can ensure that lightly wounded soldiers are returned to fighting fitness as rapidly as possible. Commonly in the Russian army the medics were young women who, although not intended for front line service, were repeatedly recorded as risking their lives to rescue wounded comrades. The men of the Russian army had a healthy respect for these angels of mercy.

Cost:	Medic 30pts (Veteran)
Team:	1 medic and up to 2 further men/women

Soviet infantry – defenders of Mother Russia

Weapons: Pistol or none as depicted on the model

Options:

- The medic may be accompanied by up to 2 men at a cost of +13pts per man

FORWARD OBSERVER

Forward observers are liaison officers responsible for coordinating the attack of heavy artillery or rocket batteries or aircraft strikes. They are likely to be accompanied by a radio operator and other immediate attendants. We rate these officers as Regular or Veteran.

Cost: Artillery Forward Observer
100pts (Regular), 115pts (Veteran)
Air Force Forward Observer
75pts (Regular), 90pts (Veteran)

Team: 1 Forward Observer and up to 2 further men

Weapons: Pistol, submachine gun, or rifle as depicted on the models

Options:

- The observer may be accompanied by up to 2 men at a cost of +10pts per man (Regular) or +13pts per man (Veteran)

INFANTRY SQUADS AND TEAMS

The Russian foot soldier has long been celebrated for his ability to endure the worst that the enemy, the Russian winter, and his own superiors could throw at him. As in all armies there were elite fighting formations as well as scratch units trained in only the most basic way, but because of the sheer size of the Russian army the latter always tended to outnumber the former. Still, the Red Army of the late war was not the disorganised and poorly led force that the Germans had so easily defeated in 1941 – even if its chief advantage was still one of numbers rather than quality.

INFANTRY SQUAD

A Russian infantry squad consisted of eleven men led by a Sergeant or Junior Sergeant – the Russian equivalent to a Corporal. Each squad included a light machine gun and one of the ordinary squad members would act as its loader – this would usually be the DP (Degtyaryov Pekhotny) machine gun with its distinctive round pan magazine. The rest of the unit carried either bolt action or semi-automatic rifles or submachine guns and all would carry grenades.

Cost: Regular Infantry 50pts

Composition: 1 NCO and 4 men

Weapons: Rifles

Options:

- Add up to 6 additional soldiers at +10pts each
- Any soldiers may have a submachine gun for +3pts each
- One soldier may have a light machine gun for +20pts. Another soldier becomes the loader
- The entire squad may have anti-tank grenades for +2pts per model

Special Rules:

- Tank hunters (if anti-tank grenades taken)

GUARD, NKVD OR VETERAN INFANTRY SQUAD

In the Red Army the title of Guards was awarded to units proven in combat and would therefore tend to denote elite troops. They were certainly given priority when it came to supplies, access to automatic weapons and promotion. They were also given the toughest assignments, often resulting in such a rate of attrition that by the end of the war many Guards units consisted mostly of raw recruits. If the Soviet army was not on the whole an elite fighting force it certainly included its fair share of battle hardened veterans. NKVD (People's Commissariat for Internal Affairs) troops were chiefly used for internal security but could potentially fight on the frontline as they did during the Crimean Offensive in 1944. These formations can be constructed as follows.

Cost: Veteran Infantry 65pts

Composition: 1 NCO and 4 men

Weapons: Rifles

Options:

- Add up to 6 additional soldiers at +13pts each
- Any soldiers may have a submachine gun for +3pts each
- One soldier may have a light machine gun for +20pts. Another soldier becomes the loader
- One soldier can have a (captured) panzerfaust in addition to other weapons for +5pts
- The entire squad may have anti-tank grenades for +2pts per model

Special Rules:

- Tank hunters (if anti-tank grenades taken)

INEXPERIENCED INFANTRY SQUAD

Throughout the war Soviet troops continued to suffer a rate of casualties far exceeding anything endured by any other combatant nation. The demand for new recruits and new formations was therefore great, and no sooner were men equipped and given the most rudimentary training than they were often thrown into the fighting. The sheer size of the Red Army meant that a significant proportion of its troops would be relatively inexperienced. We allow an inexperienced section to be constructed as follows.

Cost: Inexperienced Infantry 35pts
Composition: 1 NCO and 4 men
Weapons: Rifles
Options:

- Add up to 6 additional soldiers at +7pts each
- The NCO may have a submachine gun for +3pts
- One soldier may have a light machine gun for +20pts. Another soldier becomes the loader
- The entire squad may have anti-tank grenades for +2pts per model
- Any inexperienced infantry squads can be *Green* at no extra cost

Special Rules:

- Tank hunters (if anti-tank grenades taken)
- Green (if Green option taken)

SHTRAFBAT INFANTRY SQUAD

The Shtrafbat were penal battalions formed from troops accused of cowardice or desertion, or from civilian (often political) prisoners, or from ex-prisoners of war who stood guilty of treason having allowed themselves to be captured by the enemy. Although in theory an individual could redeem his status by some act of heroism on the battlefield, in practice this was unlikely, and service in the Shtrafbat was considered equivalent to a death sentence. Penal troops were often used to draw enemy fire, or to expose enemy positions by advancing into them, and some were employed as 'tramplers' – human mine clearers. Penal units were not always armed or might carry dummy weapons.

Cost: Inexperienced Infantry 35pts
Composition: 1 NCO and 4 men
Weapons: Rifles
Options:

- Add up to 6 additional unarmed men at 4pts each
- Any unarmed men may be given rifles at +3pts each
- Shtrafbat units can be *Shirkers* for a reduction of 3pts per man

Special Rules

- Shtrafbat can be Shirkers
- Unarmed men neither shoot nor fight at close quarters – their only value is as casualties

MACHINE GUN TEAM

The venerable Maxim 1910 model was used throughout the war, the very same weapon that had served in the Great War. It was a capable weapon that could be tripod-, sledge- or wheel-mounted and was often given a useful shield to help preserve the crew. The Maxim was slowly replaced by the newer, lighter but equally effective SG43 model machine gun.

Cost: 35pts (Inexperienced), 50pts (Regular), 65pts (Veteran)
Team: 3 men
Weapon: 1 MMG
Options:

- Gun shield (as per the model) – the gun can have a gun shield for +5pts

Special Rules:

- Team weapon
- Fixed
- Gun shield (if fitted) with the same rule as for artillery

DSHK HEAVY MACHINE GUN TEAM

The DShK 12.7mm belt-fed heavy machine gun was the standard Russian heavy machine gun of World War II comparable to the US .50 cal Browning. It was used on wheeled mountings and could quickly be placed on a tall tripod for anti-aircraft defence. Truck-mounted and multiple versions were also employed in this role. The DShK was also seen during the late war on the cupolas of Soviet heavy tanks such as the IS-2.

Cost: 49pts (Inexperienced), 70pts (Regular), 91pts (Veteran)
Team: 4 men
Weapon: 1 HMG
Options:

- Gun shield (as per the model) – the gun can have a gun shield for +5pts

Special Rules:

- Team weapon
- Fixed
- Flak
- Gun shield (if fitted) with the same rule as for artillery

ANTI-TANK RIFLE TEAM

Whilst anti-tank rifles fell out of favour in other armies the Russians continued to make good use of the 14.5mm PTRD throughout the war, even going so far as to develop an semi-automatic version, the PTRS 41. Although capable of penetrating the side armour of the lighter German tanks, crews had to get extremely close to do so, and with the more heavily armed German tanks their only chance was to hit through a vision port or other vulnerable spot, or to snipe at exposed crew members. In the later part of the war anti-tank rifles were more often used against lighter targets such as armoured cars and trucks.

Cost: 21pts (Inexperienced), 30pts (Regular), 39pts (Veteran)
Team: 2 men
Weapons: 1 anti-tank rifle
Special Rules:

- Team weapon

SNIPER TEAM

The sniper became synonymous with the Russian army particularly during the grim sieges of Stalingrad and Leningrad. They were available at company level and worked as teams or sometimes on their own. They used telescopic sights on either a bolt action Moisin–Nagant or Tokarev SVT-40 semi-automatic rifle, and a variety of ammunition that included tracer and armoured piercing rounds. Soviet snipers were renowned for their field craft, stealth and patience and the most successful snipers each accounted for hundreds of enemy – 489 being the greatest tally recorded by a single sniper.

Cost: 50pts (Regular), 65pts (Veteran)
Team: 2 men
Weapons: 1 rifle
Special Rules:

- Team weapon
- Sniper

FLAMETHROWER TEAM

The Soviets made great use of flamethrowers including static types dug in to cover bunkers and trenches. By far the most common were the man-packed ROKS types. The ROKS 2 was designed with a fuel tank that looked like an ordinary backpack and a nozzle resembling a rifle, so as not to attract unwelcome attention on the battlefield.

Cost: 50pts (Regular), 65pts (Veteran)
Team: 2 men
Weapons: 1 infantry flamethrower
Special Rules:

- Flamethrower
- Team weapon

LIGHT MORTAR TEAM

The standard light mortar used by Russian infantry during World War II was of 50mm calibre – this was deemed a 'company' mortar as opposed to the heavier battalion and regimental mortars. The weapon was easily man portable and could lay down high explosive or smoke bombs at a range of up to 800 metres.

Cost: 24pts (Inexperienced), 35pts (Regular), 46pts (Veteran)
Team: 2 men
Weapon: 1 light mortar
Special Rules:

- Team weapon
- Indirect fire
- HE (D3)

MEDIUM MORTAR TEAM

The standard Russian medium mortar of the war was the 82-PM-41 – or 82mm battalion mortar 1941 model. This served alongside the otherwise similar 82mm 1937 model. Both were very effective and accurate weapons with a range of up to 3,000 metres.

Cost: 35pts (Inexperienced), 50pts (Regular), 65pts (Veteran)
Team: 3 men
Weapon: 1 medium mortar
Options:

- May add Spotter for +10pts

Special Rules:

- Team weapon
- Fixed
- Indirect fire
- HE (D6)

HEAVY MORTAR TEAM

The Red Army pioneered the way for the heavy infantry mortar. The Germans feared them greatly, so much so that they copied the Russian 120mm weapon almost identically and used it themselves with great effect. The 120mm mortar had a range of 6,000 metres. Although even heavier mortars were produced, these were breech loading weapons with carriages that required towing vehicles to move, and are not really infantry weapons.

Cost: 46pts (Inexperienced), 65pts (Regular), 84pts (Veteran)
Team: 4 men
Weapon: 1 heavy mortar
Options:

- May add Spotter for +10pts

Special Rules:

- Team weapon
- Fixed
- Indirect fire
- HE (2D6)

FIELD ARTILLERY

The Soviet army deployed artillery in vast numbers and a bewildering variety of sizes, from lightweight infantry guns to huge divisional artillery pieces.

ZIS-3 76.2 MM FIELD GUN

The Russians produced a number of different light artillery guns all of the same 76.2mm (3-inch) calibre, but by the late war the chief weapon was the ZiS-3 divisional field gun – a good all round gun that was used both as a howitzer and against enemy tanks. All of these weapons can be represented as follows.

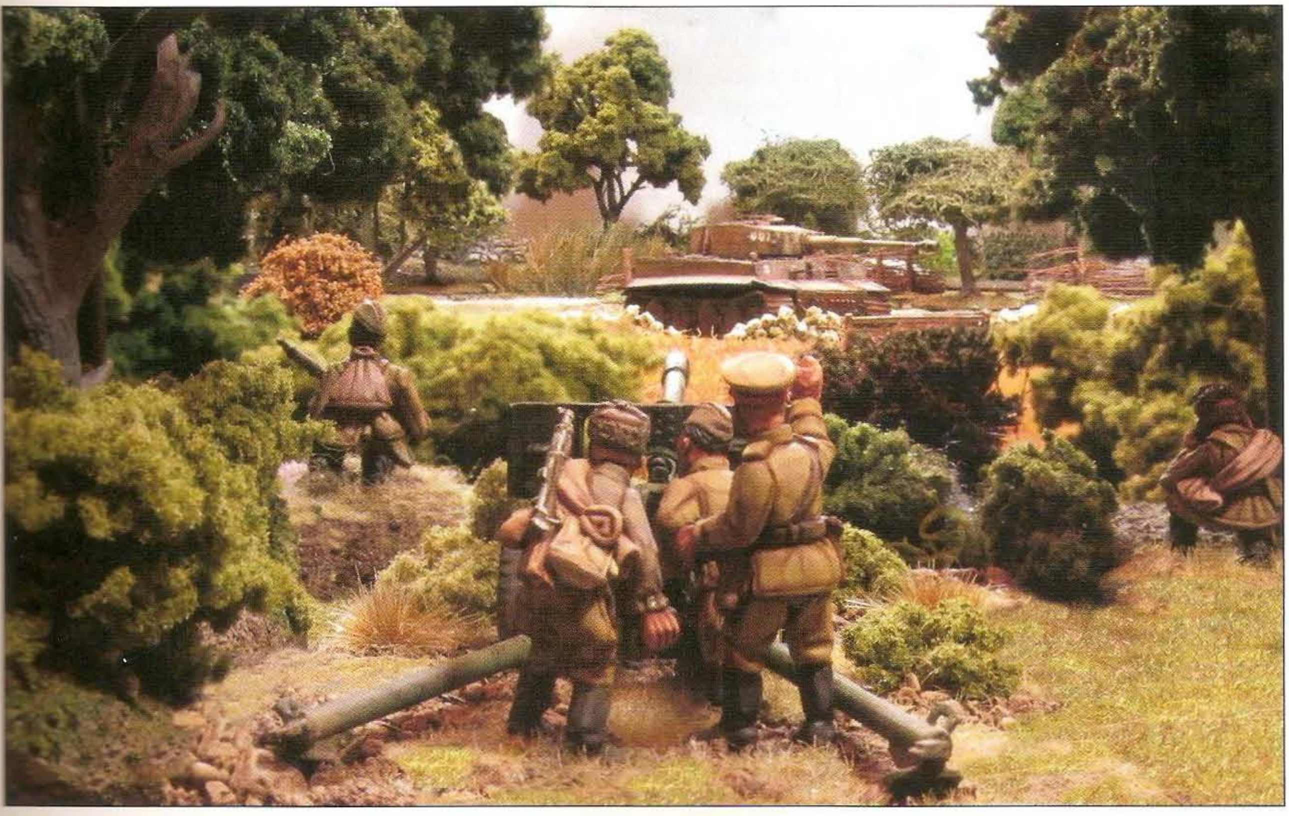
Cost:	40pts (Inexperienced), 50pts (Regular), 60pts (Veteran)
Team:	3 men
Weapons:	1 light howitzer

Special Rules:

- Gun shield
- Team weapon
- Fixed
- Howitzer
- HE (D6)

MEDIUM HOWITZER

Medium artillery consisted of 122mm artillery pieces together with a few older 107mm guns. The 122mm A19 gun was a



The Russian Bear takes on the German Tiger successful design that was also mounted onto self-propelled guns and the IS-2 heavy tank. Although too slow and cumbersome to make an effective anti-tank weapon it was certainly capable of destroying heavy German tanks, which were practically invulnerable from smaller weapons. It was later developed into a tank gun.

Cost: 60pts (Inexperienced), 75pts (Regular), 90pts (Veteran)
Team: 4 men
Weapon: 1 medium howitzer
Options:

- May add Spotter for +10pts

Special Rules:

- Gun shield
- Team weapon
- Fixed
- Howitzer
- HE (2D6)

152MM HOWITZER

The 152mm ML-20 howitzer was the main heavy gun used by the Soviet army. It was augmented by older M10 howitzers and, towards the end of the war, by the new D1 152mm howitzer. This last was a much more mobile weapon that would go on to serve in Soviet and post-Soviet armies until this day. All these guns are capable, long-ranged weapons that would typically be deployed well behind the fighting zone, having a range of over 7 miles.

Cost: 92pts (Inexperienced), 115pts (Regular), 138pts (Veteran)
Team: 5 men
Weapon: 1 heavy howitzer
Options:

- May add Spotter for +10pts

Special Rules:

- Gun shield
- Team weapon
- Fixed
- Howitzer
- HE (3D6)

ANTI-TANK GUNS

Although the 45mmm anti-tank gun was practically obsolete by 1945 it would remain in service until the end of the war. More effective by far was the ZiS-2 57mm anti-tank gun that was the standard weapon of anti-tank artillery regiments, and which were also used by the anti-tank platoons of some infantry regiments.

M-42 ANTI-TANK GUN

The 1942 model 45mm anti-tank gun was a light and relatively effective weapon, but by the late war it stood no chance against the front armour of German tanks like the Tiger and Panther. It was still a useful weapon though, and easily capable of destroying light vehicles.

Cost: 40pts (Inexperienced), 50pts (Regular), 60pts (Veteran)
Crew: 2 men
Weapon: Light anti-tank gun
Special Rules:

- Gun shield
- Team weapon
- Fixed

ZIS-2 ANTI-TANK GUN

The 57mm ZiS-2 was developed before the war to give anti-tank artillery regiments a weapon capable of taking out the more heavily armoured tanks that were being developed at the time. It was a rapid firing semi-automatic gun that could shoot up to 25 rounds a minute. The ZiS-2 was not adopted initially, possibly because the calibre was unique amongst Soviet artillery; instead anti-tank units persisted with the old 45mm M-42 and 76mm ZiS-3 field gun. However, by the late war these weapons were not capable of facing the even heavier tanks being deployed by the Germans, so production of the ZiS-2 was given the full go ahead. Almost ten thousand were made before the war ended.

Cost: 60pts (Inexperienced), 75pts (Regular), 90pts (Veteran)
Crew: 3 men
Weapon: Medium anti-tank gun
Special Rules:

- Gun shield
- Team weapon
- Fixed

BS-3 ANTI-TANK GUN

The model 1944 BS-3 100mm gun was a development of a naval anti-aircraft gun primarily as an anti-tank weapon. Although it could serve as a field gun, its smaller shell made it less effective in this role than the 122mm A-19 howitzer. The BS-3 equipped light artillery brigades within tank armies along with the ubiquitous ZiS-3 field gun. About six hundred were produced before the war ended of which 185 were in service by January 1945.

Cost: 88pts (Inexperienced), 110pts (Regular), 132pts (Veteran)
Crew: 5 men

Weapons: Heavy anti-tank gun

Special Rules:

- Gun shield
- Team weapon
- Fixed

TANKS

As with all aspects of the Soviet army Russian tanks were produced in vast quantities and the tank produced in greater number than any other was the iconic T-34 – arguably the best all round medium tank of the war. The Russians also used many lend-lease vehicles, including British and American tanks. By the late war most of these had gone apart from the M4A2 Sherman – both the 75mm and 76mm gun version were sent to Russia. Players who wish to include Shermans amongst their Soviet forces can do so using the details provided in the US army lists.

Soviet T-34/76 and tankriders

T-70 LIGHT TANK

By the mid-war the Russians had ceased production of light tanks and turned over most of their manufacturing capability to more effective vehicles. The T-70 was the last light tank produced in any number and it remained in service throughout the war. It was armed with the 45mm anti-tank gun and co-axial machine gun.

Cost:	100pts (Inexperienced), 125pts (Regular), 150pts (Veteran)
Weapons:	One turret-mounted light anti-tank gun with co-axial MMG
Damage Value:	8+ (light tank)

T-34/76 MEDIUM TANK

The T34 was produced in greater numbers than any other tank of the war. It was also continually upgraded with better armour and improved guns, making it a match for the German Panzer IV and a worthy opponent of Panthers, Tigers and heavier German tanks. By 1944 the earlier production version armed with the 76.2mm F-34 gun had been replaced by the T-34/85 armed with an 85mm ZiS-S-53 gun in a larger, three-man turret. However, the earlier tank continued in service, both fighting until the end of the war and – in the case of the T34-85 – well beyond.

Cost:	156pts (Inexperienced), 195pts (Regular), 134pts (Veteran)
Weapons:	One turret-mounted medium anti-tank gun with co-axial MMG and forward facing hull-mounted MMG
Damage Value:	9+ (medium tank)

T-34/85 MEDIUM TANK

The T34/85 was the ultimate version of the T-34 tank. It featured a larger turret that was big enough to accommodate a third crewman. This meant that the commander no longer had to also act as the tank's gunner, which greatly improved combat effectiveness. The 85mm ZiS-S-53 gun restored something of the fighting power to the T-34, which had found itself increasingly out-shot by later German tanks.

Cost:	188pts (Inexperienced), 235pts (Regular), 282pts (Veteran)
Weapons:	One turret-mounted heavy anti-tank gun with co-axial MMG and forward facing hull-mounted MMG
Damage Value:	9+ (medium tank)

KV-1 HEAVY TANK

The KV – Kliment Voroshilov – was a pre-war tank that was thickly armoured all round but also very heavy at 45 tons,

Soviet T-34/85 and tankriders

making it both unmanoeuvrable and slow. Although production continued until 1943 its technical limitations and unreliability were a constant problem. Once German tanks began to be equipped with guns that could penetrate the KV's heavy armour its singular advantage over the T-34 was gone. None the less, units were still equipped with the KV in the final year of the war, although in diminishing numbers as attrition took its toll upon the survivors.

Cost: 224pts (Inexperienced), 280pts (Regular), 336pts (Veteran)

Weapons: One turret-mounted medium anti-tank gun with co-axial MMG, one turret-mounted rear-facing MMG, and one forward facing hull-mounted MMG

Damage Value: 10+ (heavy tank)

Special Rules:

- Slow
- Armoured all round – the KV was almost as thickly armoured at the sides and rear as at the front – so no modifiers apply for penetration when shooting at the sides, rear or from above. All shots count the full armour value

IS-2 HEAVY TANK

The Iosif Stalin tank was designed to replace the old KV heavy tank and was a far better designed machine with thick frontal armour and a huge 122mm gun. This weapon was the A19 gun-howitzer that was also used by the Russian artillery. As an anti-tank weapon it was less potent than its sheer size might suggest. For one thing it was very slow to fire as the shell and charge were separate, and space within the low IS-2 turret was very cramped – two rounds a minute was about all that could be managed. In its role as a tank gun we treat the 122mm gun as a heavy anti-tank gun but with enhanced HE capability.

Cost: 256pts (Inexperienced), 320pts (Regular), 384pts (Veteran)

Weapons: One turret-mounted heavy anti-tank gun with co-axial MMG, one turret-mounted rear-facing MMG, and one forward facing hull-mounted MMG

Damage Value: 10+ (heavy tank)

Special Rules:

- HE – instead of causing D3 HE hits an HE shell causes 2D6 hits
- Slow load – an IS-2 tank cannot be given an order until at least one other unit on the same side has already been given orders (whether successfully or not)

TANK DESTROYERS

The difference between a tank destroyer and self-propelled artillery is somewhat blurred in the Soviet army because most guns were dual purpose – such as the ZiS-3 – and were used as assault guns (short-ranged artillery supporting an infantry attack), self-propelled artillery (for long-ranged indirect fire) and anti-tank guns (engaging enemy tanks with armoured piercing shells). The following types are the closest to true tank destroyers – which is to say dedicated to the destruction of enemy armour with powerful anti-tank guns.

SU-85

The SU-85 was developed as a stopgap to provide Russian armoured units with a heavy anti-tank gun capable of defeating heavily armoured German tanks such as the Tiger and Panther. It was based on the SU-122 self-propelled gun, itself a development of the T-34 tank with which it shared a basic body. Once the T-34/85 started to become available production of the SU-85 ceased and was replaced with the even more powerfully armed SU-100.

Cost: 176pts (Inexperienced), 220pts (Regular), 264pts (Veteran)

Weapons: One casement-mounted forward facing heavy anti-tank gun

Damage Value: 9+ (medium tank)

TOP SECRET

Company commander Dmitry Lavrinenko was the top Allied tank ace of the war, accredited with a total of more than 50 German tanks. The Russian tanker's success was down to his ability to get the most from the new T-34 tanks, most notably by using the vehicle's superior manoeuvrability to move from place to place, often giving the impression that his force was larger than it really was. He also had an eye for a good position from which to ambush rapidly advancing German columns, taking advantage of his white painted tank's near invisibility on open snow covered ground. Lavrinenko's achievement was all the more remarkable because his victories were scored in only a few months. He was killed in December 1941 by a landmine.

SU-100

The SU-100 was an up-gunned version of the SU-85 using the 100mm calibre DS10 gun – this weapon had a performance somewhere between the German 88mm as used on the Tiger (Kwk 36) and the superior 88mm gun on the King Tiger (the Kwk 43), but it also had the advantage of a larger shell and hence superior HE capability. It was a formidable weapon and the SU-100 was to continue in Soviet service after the war.

Cost: 240pts (Inexperienced), 300pts (Regular), 360pts (Veteran)
Weapons: One casement-mounted forward facing super-heavy anti-tank gun
Damage Value: 9+ (medium tank)

ISU-122

The ISU-122 was a development of the heavy self-propelled howitzer the ISU-152. Both used the same body and chassis, which was also shared with the new IS-2 heavy tank. The ISU-122 carried the A-19 gun – itself a combined gun/howitzer – but when mounted onto the ISU-122 it was primarily used in the anti-tank role. We shall treat this weapon as a heavy anti-tank gun but with enhanced HE capability. The large fixed casement of the ISU-122 affords the crew more room to work their gun, so we shall not impose the slow reloading rule as we did for the IS-2.

Cost: 240pts (Inexperienced), 300pts (Regular), 360pts (Veteran)
Weapons: One hull mounted forward facing heavy anti-tank gun
Damage Value: 10+ (heavy tank)
Options:

- May add a pintle-mounted HMG for +25pts

Special Rules:

- Flak (pintle-mounted HMG if fitted)
- HE – instead of causing D3 HE hits an HE shell causes 2D6 hits

SELF-PROPELLED ARTILLERY

In April of 1942 the Russians began development of three kinds of self-propelled artillery to support their infantry. These were to become the SU-76, SU-122 and SU-152 carrying light, medium and heavy howitzers respectively. All three were based on existing tank chassis, and later they would be joined by the ISU-152 mounting a heavy howitzer based on the IS-2 tank chassis.

SU-76

The SU-76 was a remarkable weapon that was produced in greater numbers than any other Soviet armoured vehicle aside from the T-34. It was based on the lengthened chassis of the T-70 light tank and featured a duel-purpose 76.2mm Zis-3 field gun in an open superstructure. It was used as an assault gun, to provide ranged support, and also against enemy tanks – a real all-round vehicle.

Cost: 92pts (Inexperienced), 115pts (Regular), 138pts (Veteran)
Weapons: One forward facing light howitzer
Damage Value: 8+ (light tank)
Special Rules:

- Open-topped
- Howitzer
- HE (D6)

Soviet SU-76

SU-122

The SU-122 mounted an adapted M-30 122mmm howitzer in an armoured encasement built upon a T-34 chassis. SU-122s were used to equip medium self-propelled artillery regiments. From the beginning of 1944 they were gradually phased out by the SU-152 and more heavily armoured ISU-122 and ISU-152.

Cost: 144pts (Inexperienced), 180pts (Regular), 216pts (Veteran)
Weapons: One forward facing medium howitzer
Damage Value: 9+ (medium tank)

Soviet SU-122M

Special Rules:

- Howitzer
- HE (2D6)

SU-152 AND ISU-152

The SU-152 was the most heavily armed of the three self-propelled gun types that entered service in early 1943. It was designed as a mobile heavy howitzer. This was a role hitherto undertaken by the KV-2 tank with a 152mm howitzer in a massive turret. The SU-152 was based on the KV chassis but its forward facing gun was mounted in an armoured casement. Although designed primarily to smash fortifications and for bombardment of enemy positions, it proved highly effective as a long-range tank killer thanks to the sheer power of its concussive blast. From 1944 onwards the SU-152 was replaced by the ISU-152 which used the chassis of the new heavy tanks – the IS-1 and later IS-2 – but the gun remained the same as did overall performance. Note that the ISU-152 had pintle-mounted machine guns fitted as standard.

Cost: 208pts (Inexperienced), 260pts (Regular), 312pts (Veteran)

Weapons: One forward facing heavy howitzer

Damage Value: 10+ (heavy tank)

Options:

- Can have a pintle-mounted HMG with a 360-degree arc for +25pts

Special Rules:

- Howitzer
- HE (3D6)
- Flak (with HMG fitted)

KATYUSHA

The multiple rocket launcher mounted onto a truck is one of the most distinctive Soviet weapon of the war. The noise it made led the German to refer to it as 'Stalin's Organ' but to the Russians themselves it was the Katyusha – 'Little Katie'. There were several different types mounting more or fewer rockets, those carrying the most rockets requiring considerable longer to reload. All Katyushas were used for long-ranged bombardment – their mobility enabling them to move quickly after firing to escape the effects of enemy counter-battery fire.

Cost: 64pts (Inexperienced), 80pts (Regular), 96pts (Veteran)

Weapons: One forward facing Katyusha multiple rocket launcher (heavy mortar)

Damage Value: 6+ (soft skin)

Special Rules:

- Indirect fire
- HE (2D6)
- Multiple launcher

ANTI-AIRCRAFT VEHICLES

Provision of specialised mobile anti-aircraft vehicles in the Soviet army was poor throughout the war and the example given here is the American built M17 half-track. By the late war the Soviet airforce dominated the skies in the east and there was little need to provide ground forces with mobile anti-aircraft cover.

M17 ANTI-AIRCRAFT VEHICLE

The M17 used the International Harvester built M5 half-track as the basis for a powerful mobile anti-aircraft gun. It was otherwise comparable to the M16 as used by the Americans and featured a Quad .50 HMG. The Russians used their M17s against low flying aircraft and also against ground targets.

Cost: 100pts (Inexperienced), 125pts (Regular), 150pts (Veteran)

Weapons: Four turret-mounted HMGs

Damage Value: 7+ (armoured car)

Special Rules:

- Open-topped
- Flak

ARMOURED CARS

As with all combatant nations the Russian forces included armoured cars that were used for scouting and sometimes as light support for infantry – especially during street fighting where their small size and manoeuvrability made them especially useful.

BA-64

The tiny BA-64 'Bobik' (*Bobby*) became the standard Russian light armoured car from when it first appeared in 1942 and, despite its rather primitive appearance and thin armour, it continued in service until the 1960s. Its chief drawback was its sole armament of a single light machine gun in an open turret.

Cost: 48pts (Inexperienced), 60pts (Regular), 72pts (Veteran)

Weapons: One turreted LMG with 360-degree arc

Damage Value: 7+ (armoured car)

Special Rules:

- Recce
- Open-topped

BA-10

The BA-10 was a pre-war design that ceased production in 1941, but examples remained in service throughout the war. It was based on the chassis of a GAZ truck and rather unusually carried spare wheels on its side, which also helped the car from grounding when crossing ditches. It packed a 45mm gun in a fully enclosed turret as well as two DT light machine guns. Although classed as a heavy armoured car as 5 tons, its armour was no thicker than 15mm at its greatest, so we rate it with a damage value of 7+ as a 'light' armoured car.

Cost: 96pts (Inexperienced), 120pts (Regular), 144pts (Veteran)

Weapons: One turret-mounted light anti-tank gun with co-axial LMG and one forward facing LMG

Damage Value: 7+ (armoured car)

Special Rules:

- Recce

TRANSPORTS AND TOWS

The Russians produced numerous designs of trucks of all sizes from the GAZ staff car and 1½ tonners to larger ZiS 2 ½ and 3 tonners and heavy cargo trucks such as the YaG 5 and 8 tonners. However, the Allies supplied a tremendous number of trucks and other soft-skins under lend-lease arrangements, with the Americans alone supplying nearly half a million vehicles of one kind or another. The rugged American trucks were used in all kinds of roles including as tows. British trucks were also supplied in their thousands, including the Bedford 3-tonner, as were Universal or 'Bren' carriers which were used for reconnaissance, as artillery tows, and machine gun carriers. Players wishing to employ these can use the same details as given in the British list.

TRUCK

Trucks come in all shapes and sizes and are as likely to be American as Russian – with even a few British examples supplied during the mid-war period. Most general purpose military trucks come in around the 2 ½ to 3 ton mark and would mostly be used to transport cargo or as tows for guns. The GAZ 'poltorka' (a licensed Ford 1929 model) was the workhorse of the Soviet army throughout the war.

Cost: 31pts (Inexperienced), 39pts (Regular), 47pts (Veteran)

Weapons: None

Damage Value: 6+ (soft-skin)

Transport: Up to 12 men

Tow: Light howitzer; light or medium anti-tank gun

Options:

- May have a pintle-mounted MMG with 360-degree arc of fire for +15pts

Special Rules:

- Flak (pintle-mounted MMG if included)

HALF-TRACK TRUCK

The Russians produced a number of half-track trucks similar to the German Maultier design. These included the GAZ 1 ½ ton and ZiS 2 ½ ton half-tracks, which were designed in such a way that the rear track suspension could be lifted and the track removed, allowing the truck to drive on its rear wheels when required.

Cost: 35pts (Inexperienced), 44pts (Regular), 53pts (Veteran)

Weapons: None

Damage Value: 6+ (soft-skin)

Transport: Up to 12 men

Tow: Light howitzer; light or medium anti-tank gun

Options:

- May have a forward facing pintle-mounted MMG covering the front arc for +10pts

Special Rules:

- Flak (pintle-mounted MMG if included)

GAZ 'JEEP'

The Gaz 67 Command car was inspired by the US built jeep, which it superficially resembles. The Russians built just under 5,000 by the end of the war – but received more like ten times as many actual jeeps, so either could be included in a Russian army.

Cost: 17pts (Inexperienced), 21pts (Regular), 25pts (Veteran)

Weapons: None

Damage Value: 6+ (soft-skinned)

Transport: 3 men

Tow: Light anti-tank gun

Options:

- May have a pintle-mounted MMG for +15pts, losing all transport capacity
- May upgrade the MMG to a HMG for +10pts

Special Rules:

- Flak (pintle-mounted HMG if fitted)

Soviet Gaz 67 field car

ARTILLERY TRACTOR

The Russians produced a bewildering variety of artillery tractors of all shapes and sizes, including many that resembled fully-tracked trucks with tank underpinnings and truck bodies. Many more were quite literally tractors – adapted from agricultural machines for military use. Tractors were often given armoured bodies, such as the T-26 (based on the chassis of a pre-war light tank) and T-20 Komsomolets with its armoured crew cabin and exposed benches for artillerymen.

Cost: 12pts (Inexperienced), 15pts (Regular), 18pts (Veteran)
Weapons: None
Damage Value: 6+ (soft-skinned)
Tow: Any anti-tank gun; any howitzer (Komsomolets light or medium howitzer)

Options:

- Field as armoured tractor with damage value of 7+ at +20pts
- Komsomolets – must be armed with forward facing light machine gun for +5pts

Special Rules:

- Slow
- Open-topped (if armoured)

M5 HALF-TRACK

The Russians used the M5 half-tracks that they received under lend-lease arrangements as artillery tractors rather than as armoured personnel carriers, but we will give them the same game values as other M3 and M5 carriers and give players the option. No doubt a few found their way into the hands of elite formations at the end of the war.

Cost: 79pts (Inexperienced), 99pts (Regular), 119pts (Veteran)
Weapons: One pintle-mounted HMG in pulpit mount with 360-degree arc of fire
Damage Value: 7+ (armoured carrier)
Transport: 12 men
Tow: Light, medium or heavy anti-tank gun; light or medium howitzer

Options:

- May add up to two additional pintle-mounted MMGs (one covering the left arc and one covering the right arc) for +15pts each

Special Rules:

- Open-topped
- Flak (pintle-mounted HMG)

AEROSAN

The Aerosan was a peculiarly Russian vehicle – a lightly built sled pushed along by a small aeroplane engine. In military hands they were used for scouting over areas of deep snow and ice that were otherwise impenetrable to ordinary vehicles. They were also used to support ski-troops, towing supplies or even men. Although restricted to snow and ice they are interesting vehicles, and the version shown here is the support Aerosan with up to 10mm of armour and a light machine gun.

Cost: 40pts (Inexperienced), 50pts (Regular), 60pts (Veteran)
Weapons: One forward facing LMG
Damage Value: 7+ (armoured car)

Special Rules:

- Snow – the Aerosan can only travel over snow or flat ice – which it treats as normal terrain travelling at the same speed as a wheeled vehicle, but with the same manoeuvrability as a tracked vehicle (1 turn per move)
- Open-topped

Soviet Gaz 98 aerosan

MULTIPLAYER GAMES

Although Bolt Action is designed for games between two opposing players, during the course of developing the rules we had recourse to playing many games between teams of two, three and even four players a side. In fact, most of our games were played in this way, with the command of each side shared between a number of players. When playing in this fashion each player would take a roughly equal proportion of the forces, usually all the forces on one flank or in the centre. As order dice are drawn from the dice cup the team would decide between them whose need was greatest, and allocate the dice to the appropriate player. Aside from facilitating games between rival teams, the game otherwise plays exactly as described.

One of our groups of players decided to use distinctly coloured dice not only for each side but for each player as well, so one side might be black, grey and brown, for example, whilst the other could be blue, green and yellow. Using this method, as a die is drawn from the dice cup it not only identifies which side's unit is activated next, but which individual player, and therefore which portion of the army. This gives a slightly different dynamic to the game, but is probably more realistic and certainly speeds things along if teams are otherwise prone to dithering (or worse!).

For you, Jerry, the war is over!

RULES SUMMARY

THE TURN

TURN SEQUENCE

1. Orders phase

1. Draw an order die from the dice cup and hand it to the appropriate player.
2. The player chooses one of his units and gives it an order. Place the order die next to the unit to show that it has received an order. Once a unit has been given an order it cannot be given another order that turn.
3. If necessary, the player takes an order test to determine if the unit follows the order.
4. The player executes the unit's resulting action.
5. Back to 1. Once all eligible units have received an order, the orders phase ends – move to the turn end phase.

2. Turn End phase

Remove order dice for destroyed units. Return remaining order dice to the cup, except for those units retaining an *Ambush* or *Down* order.

ORDERS

ORDER	SUMMARY OF ACTION
1 *Fire*	Fire at full effect without moving
2 *Advance*	Move and then fire
3 *Run*	Move at double speed without firing. Also used for assaulting
4 *Ambush*	No move/fire, but wait for opportunity fire
5 *Rally*	No move/fire, but lose D6 pin markers
6 *Down*	No move/fire, but gain an extra –1 to be hit

FUBAR!

If an order test roll comes up two sixes then not only is the order not given but the player must immediately roll on the chart below. Roll a die to find what action the unit takes.

FUBAR CHART	
1 or 2	**Friendly Fire** The unit does not move and opens fire against a friendly unit, mistaking it for enemy. Place a *fire* order by the unit. The opposing player chooses the target. The target must have an enemy unit within 12", as proximity to enemy is precisely what has caused the 'friendly fire incident'. If no such target is available the unit does not fire and goes *down* instead.
3, 4, 5 or 6	**Panic** The unit executes a *run* order and must move as fast as possible away from the closest visible enemy unit. If no enemy are visible the unit goes *down* instead.

TROOP QUALITY AND MORALE

QUALITY	MORALE	EXAMPLES
Inexperienced	8	Conscript, poor or little training, no combat experience
Regular	9	Normal training and some combat experience
Veteran	10	Special training (paras, commandos, marines) and extensive combat experience

OFFICER MORALE MODIFERS

Second Lieutenant	+1
First Lieutenant	+2
Captain	+3
Major	+4

MOVEMENT

TYPE	ADVANCE	RUN
Infantry	6"	12"
Tracked vehicle	9"	18"
Half-tracked vehicle	9"	18"
Wheeled vehicle	12"	24"

TERRAIN TABLE

TERRAIN CATEGORY	INFANTRY	ARTILLERY	WHEELED VEHICLES	TRACKED VEHICLES
Open Ground	OK	OK	OK	OK
Rough Ground	No Run	No*	No	No Run
Obstacle	No Run	No	No	OK*
Building	OK	No*	No	No (!)
Road	OK	OK	×2	×2

Key:

OK – The unit can move through the terrain without hindrance – this is the default or normal rate for all kinds of troops over open ground.

OK* –The unit can cross this kind of terrain without hindrance unless it has been designated as an anti-tank obstacle, or impassable bocage, or the equivalent, in which case it is impassable to all types of vehicle.

No Run – The unit cannot cross or move within this kind of terrain if undertaking a run action, but can cross or move over with an advance action.

No – The unit cannot enter or move within this kind of terrain at all.

No* – The unit cannot enter or move within this kind of terrain, except that it can be deployed within the terrain at the start of the game. In this case it cannot move once deployed. This represents situations where guns are 'dug in' to positions prior to the battle as discussed in the section on Artillery.

No (!) – The unit cannot enter or move within this kind of terrain, except that heavy and super-heavy tanks may move through and demolish some buildings in some situations. See the rules for buildings on p99.

×2 – The unit's move rate is doubled if it moves entirely along a road or track. This enables vehicles to move rapidly along roads where the opportunity permits.

VEHICLE MANOEUVRE

TYPE	ADVANCE	PIVOT (90°)	RUN	PIVOT (90°)
Tracked	9″	1	18″	None
Half-track	9″	2	18″	1
Wheeled	12″	2	24″	1

REVERSE MOVES

A vehicle can reverse straight backwards at up to half its standard *advance* rate unless it is a **recce** vehicle. A recce vehicle can reverse at its full *advance* rate and can manoeuvre as if driving forward.

SHOOTING

SHOOTING PROCEDURE

1. Declare target
2. Target reacts
3. Measure range and open fire
4. Roll to hit
5. Roll to damage
6. Target takes casualties
7. Target checks morale

HIT MODIFIERS

The basic chance of hitting a target is a roll of 3, 4, 5 or 6 on a die (i.e. a roll of 3+). The following modifiers apply.

Shooting at point blank range	+1
Per pin marker on the firer	–1
Long range	–1
Inexperienced	–1
Fire on the move	–1
Target is 'down' infantry or artillery	–1
Target is a small unit	–1
Target is in soft cover	–1
Target is in hard cover	–2

DAMAGE VALUE TABLE

Once a target is hit the minimum score indicated is required to score damage (i.e. 3+ is a roll of 3, 4, 5 or 6 on a die)

DAMAGE VALUE TABLE

TROOPS AND SOFT-SKINNED TARGETS	RESULT NEEDED
Inexperienced infantry or artillery	3+
Regular infantry or artillery	4+
Veteran infantry or artillery	5+
All soft-skinned vehicles	6+
ARMOURED TARGETS	**RESULT NEEDED**
Armoured car/carrier	7+
Light tank	8+
Medium tank	9+
Heavy tank	10+
Super-heavy tank	11+

British Crocodile on the road

SHOTS

shells have a penetration modifier that is fixed to the HE lue, and, in some cases, can result in more 'pins' on the rget as shown on the chart below.

HE	PIN	PEN
D2	1	+1
D3	1	+1
D6	D2	+2
2D6	D3	+3
3D6	D6	+4

German Panther Ausf A

HOOTING AT VEHICLES

ADDITIONAL PENETRATION MODIFIERS FOR HEAVY WEAPONS AGAINST ARMOURED TARGETS	
Vehicle's side or top armour	+1
Vehicle's rear armour	+2
Long range	–1

DAMAGE RESULTS ON ARMOURED TARGETS

DIE ROLL	EFFECT
1 or less	***Crew Stunned.*** *The crew is stunned or momentarily overcome by smoke or shock.* Add one additional pin marker to the vehicle. Place a *down* order die on the vehicle or change its current order die to down to show that it is halted and cannot take a further action that turn.
2	***Immobilised.*** *Part of the vehicle's tracks or wheels are blown apart.* Add one additional pin marker to the vehicle. The vehicle cannot move for the rest of the game. Place a suitable marker or token by the vehicle to show this. If the vehicle has already taken an action this turn flip the order die to *down* to indicate it has been brought to a halt. If a further immobilised result is suffered the crew abandon the vehicle and it is considered knocked out (see below).
3	***On Fire.*** *The hit ignites either the vehicle's fuel or ammunition. The crew are driven into a blind panic, fearing to be trapped in a burning wreck.* Add one additional pin marker and then make a morale check for the vehicle. If the test is passed the fire has been put out or fizzles out of its own accord. Place a down order die on the vehicle or change its current order die to *down* to show that it is halted and cannot take a further action that turn. If the test is failed, the crew abandon the vehicle and it is considered knocked out (see below).
4, 5 or 6	***Knocked Out.*** *The vehicle is destroyed and becomes a wreck.* Mark the vehicle in some fashion to indicate it is wrecked – a blackened cotton ball and/or an upside-down turret work quite well. Some players like to use models of wrecked vehicles instead. Either way, wrecks of armoured vehicles count as impassable terrain. If players prefer not to bother with wrecks, destroyed vehicles can be removed altogether, perhaps blown apart by an internal explosion leaving only scattered debris.

Superficial Damage – Roll D6-3	Full Damage – Roll D6
Massive Damage – Roll two results (see below)	Open-topped hit by indirect fire – Add +1

CLOSE QUARTERS

CLOSE QUARTERS PROCEDURE – INFANTRY VS INFANTRY

1. Declare target
2. Target reacts
3. Measure move distance and move assaulting models
4. Fight first round of close quarters
    a. Attackers roll to damage
    b. Defenders take casualties
    c. Defenders roll to damage
    d. Attackers take casualties
    e. Loser surrenders and is destroyed
5. Resolve draws – further rounds of close quarters
6. Winner regroups

INFANTRY ASSAULTING VEHICLES

Infantry cannot assault a vehicle making a run action unless subsequently immobilised or otherwise brought to a halt.

An infantry unit that is **not** equipped with anti-tank weapons must take and pass an order test with a –3 modifier when attempting to assault any kind of fully enclosed armoured vehicle.

Vehicles can fire their weapons at infantry starting their assault from more than 6" away and within the weapon's firing arc in the usual fashion. Recce vehicles can react by making an *escape* move as described on p95.

ROLL TO HIT	
Vehicle advancing	6
Otherwise	4, 5 or 6
Vehicle run	N/A

ROLL TO DAMAGE
Damage roll = number of hits scored + D6

If the vehicle is a soft-skin or open-topped it is destroyed if damaged. If it is an enclosed armoured vehicle roll on the Damage Results table. Infantry not armed with anti-tank weapons can only score superficial damage.

If the vehicle survives the assault is over and assaulting infantry regroup.

US Marines suppress Japanese bunkers with overwhelming firepower

World War II Wargames Rules

BOLT ACTION

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